The Training and Management of Horses

By

J. P. F. BELL, F.Z.S.

JOHN A. SEAVERNS

THE . .

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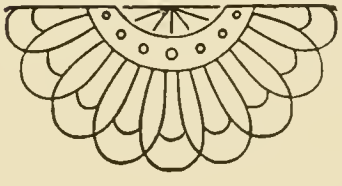

GALASHIELS:

CRAIGHEAD BROS., LADHOPE VALE.

1904.

"There is in every animal's eye . . . . a flash of strange light through which their life looks out and up to our great mystery of command over them, and claiming the fellowship of the creature, if not of the soul."—RUSKIN.

"There is nothing in the will of man half so powerful in educating the lower animals as thoughtful kindness. Inflexible decision, combined with gentleness and sympathy, are irresistible weapons in the hands of man; and I do not believe that there is any animal which cannot be subdued if the right man undertakes the task."—Rev. J. S. WOOD

"He was a perfect horseman, and never lost his temper with his horse, talking to and reasoning with it if it shyed or bolted, as if it had been a rational being, knowing that from the fine organisation of the animal, a horse, like a child, will get confused by . . . . fear, which is only increased by punishment."—*From* "THE LIFE OF CHARLES KINGSLEY," vol. ii., p. 9.

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PREFACE.

In writing this work on THE TRAINING AND MANAGEMENT OF HORSES, *the object of the author has been to lessen the barbarity often heedlessly inflicted upon these animals by careless and incapable men. The method of management described in the following chapters — the keynote of which is uniform kindness and patience — will be found on application to be thoroughly practical in all its stages. With the exception of the photographs, which are taken from life, the illustrations have been drawn by the author in order to render the principles of the system more intelligible to readers. Should this work be instrumental, in however small a degree, in alieviating the suffering of horses and at the same time tend to a more scientific development of general horsemanship, its primary object shall have been accomplished.*

The thanks of the author are due to Messrs Vinton & Co., Limited, London, through the courtesy of their Editor, for permission to use the articles which appeared in THE LIVE STOCK JOURNAL, *as well as his indebtedness to them for the use of the blocks; to the Editor of* THE LAND AGENTS' RECORD *for his kindness in granting a similar privilege; and to Mr A. Thomson, F.S.A., Scot. (Author of "Lauder and Lauderdale," &c.) for his painstaking work in reading the proofs.*

J.P.F.B.

FULFORTH, October 1904.

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CHAPTER I.

INTRODUCTION.

The general management of horses is a subject on which we can never be too well informed, especially those of us who are more immediately associated with them. The horse, of all the lower animals in this country, is by far the most noble, and, at the same time, by far the most useful. Indeed, it would be a practical impossibility, in this busy world of enterprise and commotion, to get along without the aid of this noble and useful animal. There is scarcely a single industry or trade throughout the whole country which is not in some measure, directly or indirectly, dependent on the horse ; nor a single individual, to a greater or a less degree, who is not at times benefited by him. If we could imagine for a moment a sudden and total suspension of horse power for one short week, the results consequent on such a calamity would be almost

incalculable in their disastrous effects. Trade would be paralysed, and all classes of industry would necessarily be reduced to a deadlock. Of course this is suggested simply to illustrate the real worth of the horse, on the same principle that few benefits are fully appreciated until they are gone, for, as the old proverb runs, "We never miss the water till the well runs dry." The recent war in South Africa had a remarkable influence on the price of horses, which serves to illustrate their value and importance, notwithstanding the advantages of steam and other modes of locomotion. Whilst motor power, both on the road and in the field, has no doubt come to stay, yet horse labour cannot possibly be altogether superseded ; there are a hundred odd jobs on the farm and in the town where motor locomotion is impracticable. When railways and steam were introduced, many writers predicted that the demand for horse power would be lessened ; instead of that, however, time has proved that horses have been required in very greatly increased numbers. As it has been with railways and steam, it may not be too sanguine to hope that the demand for good, sound horses may still go on increasing.

Having sketched briefly how largely we are dependent on the horse as an essential agent to progress, we should like to impress on all those who have the direct management of him, to exercise, at all times and in all circumstances, a uniform kindness towards him.

THE POWER OF REASON OVER INSTINCT.

Far greater results can be accomplished by the judicious exercise of uniform kindness than by the coarse and cruel treatment which, in many cases, is only too prevalent at the present day.

There is one most important fact which should always be carefully remembered, and which should in all circumstances, however harassing, persuade man to act kindly towards the horse, and that is, his infinite superiority over him.

Man is endowed with the supreme power of reason and intelligence, by which he governs and controls his actions ; whereas, the actions of the horse on the contrary, are only governed by mere brute instinct. This is an arrangement absolutely essential in maintaining the perfect balance of natural law by which animal power is concentrated and utilised for the benefit of mankind and the world in general. Were the lower animal world, like mankind, endowed with the calculating power of reasoning, the whole system of Nature would rapidly become deranged, and existence would become intolerable, if not impossible.

Animals possessed of great strength and power, like the horse, would throw off their subjection to man, and refuse to be controlled by a creature of his diminutive standard. Can anyone imagine for a moment a beautiful Arab horse of thoroughly proportioned symmetry, a highly strung nervous temperament, and the sharp, sensitive instincts peculiar to his

breed—can anyone, we ask, imagine a fiery animal of this kind, possessed of the element of reason, remaining under the complete subjection of his rider? The thing is impossible. The noble Arab would never consent to his rider's presumption. His insignificant rider could never face him on the platform of equality. The enormous physical superiority of the horse, guided by an intelligent process of reasoning, would baffle every attempt of the man to subdue him, and, by the very inequality of the contest, is it not likely that the rider would come out of it only second best?

Numerous instances of the sagacity of horses are recorded, which some people mistakenly attribute to reason, but, after a thorough investigation of the circumstances, they will generally be found to be but the simple and natural results of training and habit. Occasionally instances of apparent sagacity may arise from mere freak or accident, and are often fully and satisfactorily accounted for by their peculiar surrounding circumstances, which, when deliberately and carefully considered, almost preclude the possibility of any other course of action being participated in. In other words, the most natural thing for a horse to do, in given circumstances, is simply the thing that he does, and, as already suggested, his action may be the result of emergency, training, or habit. The law of instinct, like reason, is flexible and elastic to a limited degree, and while there is probably no hard and fast law to bind it to a definite course, it is

absolutely incapable, so to speak, of getting outside of itself. It cannot extend its power beyond its natural instinctive faculty, and thus we find no animals improving their condition, socially or otherwise.

INCIDENT OF AN OFFICER'S HORSE.

We have read how an officer, in a recent Eastern campaign, was wounded and fell from his horse; how the sagacious animal returned to where he was lying and stood near him till, by an almost superhuman effort, he was able to mount, when the horse galloped forward to rejoin his comrades. This horse, in the extraordinary circumstances of the case, may have been scared by something unknown to his wounded rider and returned to him in the most natural way conceivable, or, probably, by the merest chance. He may have taken fright at some unusual object, heard his rider's calls, or been trained when "broken in" to return when his rider fell off—(which excellent acquirement in a horse shall be fully dealt with in a future chapter). Various unexplained events may have caused the horse to return, of the existence of which the unfortunate officer could not possibly be cognisant. Self-preservation is the first law of nature, and the wounded officer, after getting fairly astride him, might unconsciously apply the rowels to the flanks of the horse, and his mad haste to rejoin his comrades might be materially accelerated by a touch of the spur, an indication of the rein, or a desultory warning bullet from the enemy. The

cause of the mad rush of the horse may not have been to save his master's life. It may have been pure fright that induced him to take both journeys. There is nothing in this incident indicative of the power of reason, nothing that cannot consistently be attributed to chance, circumstance, training, or habit.

THE CIRCUS PERFORMING HORSE.

We shall now consider a more definite test of reason. The circus performing horse, from the many remarkable feats he accomplishes, might be considered a sort of *ens rationis*, by advocates of the theory of reason in animals, for it is doubtless true that when a well-trained horse is told to bring the cap of one of the spectators, he will obey and accomplish it every time without error. But even in this case there is no evidence of reason, as the horse acts simply as a machine in the hands of his trainer. The horse has been trained to perform this particular feat, and he obeys from sheer force of habit, because it is a notorious fact that, were his trainer to command him in the same habitual and persuasive accents to fetch a handkerchief instead of the orthodox cap, he would bring the latter every time without deviating in any way from his accustomed routine, demonstrating unmistakably that whenever the issue is the least confused he fails to rise to the occasion, because the indispensable power of reason is absent. His natural instinctive faculty cannot enable him to discriminate between a handkerchief and a cap. He fails to dis-

tinguish so nice a difference, which substantially proves that reason is a higher and nobler power—a sublime inspiration of thought which is necessarily foreign to his limited instinct, however strongly it may be developed through training and kindness.

ANOTHER TEST OF REASON.

Again, if a horse were looking over a wall and a man presented a gun at him from the opposite side, he would probably do one of two things:—either he would prick his ears and stare the danger in the face, or he would gallop round in a series of small circles—but neither course could be considered a safe or reasonable means of escape from the threatened danger. In both cases the gun would cover him just the same, whereas, if he possessed an intelligent thinking reason, in all likelihood he would drop down behind the wall, as ninety-nine men in every hundred would, allowing one per cent. for imbecility, and thus be completely screened from the range of fire.

INTELLIGENCE OF THE HORSE.

In "Animal Intelligence," the late Mr G. J. Romanes, F.R.S., affirms that horses do not possess the highest instinct among herbivorous animals, while many of the larger carnivorous animals are endowed with much more acutely strung instincts.

"The horse," he says, "is not so intelligent an animal as any of the larger carnivora, while, among herbivorous quadrupeds, his sagacity is greatly ex-

ceeded by that of the elephant, and, in a lesser degree, by that of his congener, the ass." But *quot homines tot sententiæ*, and, while respecting the work of such an excellent observer, we venture to think the great majority of experienced horsemen would credit the horse with higher instinct than the ass.

KINDNESS VERSUS CRUELTY.

The gulf, then, which separates man from the lower animals is wide and impassable ; the power which reason can exercise over instinct is marvellous, and, from the loftiness of this power, man should never descend to practise unkindness in any shape whatever towards the horse. Cruelty to horses is practised through pure ignorance—through a want of appreciation of man's superior power in educating the natural instincts of the horse to yield submissively according to the special requirements in each individual case. As already explained, the horse does not possess the necessary intelligence to induce him to measure his power with man. No sane man ever tries to fight a horse on the power of his strength, but has recourse to other and safer means wherein a substitute is found to oppose and master it.

THE BASIS OF MANAGEMENT.

By the previous illustrations, and a long practical experience of horses, we have come to the conclusion that instinct is a force which can always be governed by reason, and that kindness is much more beneficial

in its results than unkindness; therefore, those two important matters form the basis on which our method of horse management is elaborated, and we shall endeavour, through all the different stages, to establish its accuracy and practicability.

CHAPTER II.

VARIATIONS OF TEMPERAMENT IN MEN AND HORSES.

There is just the same amount of difference between a well-trained and a badly-trained horse, as there is between a well-educated and an under-educated person. The one is cultured and refined, the other awkward and coarse, or, to use a very popular expression, "He is just as Nature made him."

No one of ordinary appreciative ability requires to be long in the company of another to discover whether he has been well educated or not, nor does it take the skilled horseman more than a few minutes to determine the training of a horse, whether it has been good or bad; thus, to a great extent, horses are made pretty much what they are according to their breaking and management. Even a quiet horse in bad hands may very soon become unmanageable.

SYMPATHY BETWEEN HORSE AND MAN.

There is a peculiar link of sympathy between horse and man, and that is:—that a horse just requires about the same time to find out a man's merits or demerits

as a man takes to find out his. Many people hold the opinion that this is utter nonsense, and that no bond, sympathetic or otherwise, can possibly exist between a horse and a man. This is a difficult matter to explain on paper, and, whilst it may not be understood by a novice, every average horseman will readily appreciate this mysterious link which is *felt* rather than seen.

HOW THE HORSE KNEW THE RIDER.

We knew a case of a young man in town who suddenly inherited a large fortune. He had been accustomed to ride a bicycle, but, anxious to do the county squire, he visited a country friend to purchase a hunter. He had never previously ridden, and those readers who know anything about equestrian science will readily appreciate the humour and novelty of his position. As soon as he was fairly astride the horse, he knocked the ashes from his cigar, adjusted his eyeglasses, and drew his whip across the flanks of the spirited hunter. The horse bounded in the air and so did the rider, but before either touched *terra firma* a dissolution of partnership had occurred. In this case, the horse knew the rider in one brief moment, but the rider never knew *that* horse all his life.

HOW THE RIDER KNEW THE HORSE.

Again, we knew a gentleman who owned a very valuable hunter, but there was a certain road along

which the horse habitually refused to go. He would rear, plunge, and throw his rider on all occasions. The owner, being a timid man, always withdrew his feet from the stirrups on approaching this particular place, making sure, at least, that when thrown he would not be dragged. At length the owner grew frightened to ride the horse, and offered him for sale. A gentleman came to try him, got upon his back, and, as luck would have it, turned him exactly in the direction of the fatal road. On nearing the place, the rider found the horse drawing himself together as if to wheel, and, taking him well in hand, dug the "persuaders" full to the hilt immediately behind the girths, with the result that the terrified brute bounded past like a rocket—the first time he had been ridden past for many a long day. Thus, by inserting the spurs in his ribs, instead of withdrawing his feet from the irons like his owner, who was always "riding for a fall," the rider accomplished with ease what to another man was impossible, simply by presence of mind, and doing the right thing in the right place at the proper time.

Thus, as already indicated, there is a close sympathy between horse and man, and, in bad hands, a good horse may become a bad one, while, in good hands, a bad horse may become a good one. Bad horsemen are met with in larger numbers than bad horses, force, rather than kindness, being the key to their management generally.

FOUR ELEMENTS NECESSARY IN A GOOD HORSEMAN.

There are four elements necessary in the nature and character of man to render him a good and proficient horseman, and these are :—patience, perseverance, a steady nerve, and an active presence of mind. Patience and perseverance in all cases will prove of invaluable service ; a good nerve is indispensable, without which no man can ever be pronounced a good horseman ; and an active presence of mind will prove of inestimable service in cases of emergency, when prompt and immediate action must be taken. Indeed, one active man with a cool head is worth half-a-dozen men who are nervous and excitable.

DEGREES OF TEMPERAMENT IN HORSES.

There is a great difference in the temperament of horses, consequently they require varying degrees of treatment in order to obtain general and satisfactory results. A high-spirited, nervous animal requires to be handled with extreme care, for, although he is easily overcome on the one hand, he is proportionately easily spoiled on the other. A stubborn, bad-tempered animal not only requires different degrees of treatment, but may require a separate system of treatment altogether. He is not so easily overcome ; his instinctive senses are duller and less perceptive, consequently a much longer time is necessary in

imparting to him the precise ideas he is intended to conceive. He will generally learn less in half-a-dozen lessons than a nervous, high-spirited colt will learn in one.

INDICATIONS OF TEMPERAMENT.

The practised eye of a skilled horseman can predict pretty accurately in a few minutes what the character of a horse is likely to be. The chief indications are found in the eyes, the position of the ears, and the general conformation of the head. A great deal might be written on the various shapes of skulls as indicating the different character and temperament of horses. It is quite possible to reduce them to a very sound and accurate theory, but it would occupy too much time and space to enumerate them all, besides, a scientific knowledge of this matter is not absolutely necessary in the ordinary management of horses. A few of the more pronounced indications shall be given, however, which may prove of some help to the uninitiated in determining the character of different horses with which they may have to deal.

A horse that is continually moving his eyes about in all directions with a somewhat startled expression, and his ears well forward and stationary, will generally be in possession of a good and even temper. There is a great difference between a *startled* expression in the eyes and a *watchful* one. The ears are scarcely ever laid back when a horse is startled, but when he is watchful they are generally in that posi-

tion. In the latter case, a horse does not turn his head about much, but indulges in quick, furtive glances in all directions.

A horse that is continually rolling his eyes about, and showing the white portion to a marked degree, while his ears are constantly on the move—the one forward and the other backward alternately—may be estimated with certainty to be extremely shy and nervous.

When a horse has a quick, watchful eye, his ears working fitfully in all directions, inclined to squeal if his fore-legs are touched, and giving his tail an occasional whisk, in nine cases out of ten he will be a pronounced and confirmed kicker.

Or, if a horse has unusually small eyes, deeply sunk, placed very nearly perpendicular in his head, his ears inclined backward, and occasionally showing his teeth, he will generally develop some vice in unskilled hands, and in all likelihood it will be that of biting.

A horse with a prominent forehead will generally be game and plucky, with a strong, determined temper, although, if carefully trained, he is generally very easily managed. There is a difference between a prominent and a bumpy forehead ; the latter is generally indicative of underbreeding, and sometimes denotes reversion to a remote ancestral type.

A horse with a hollow forehead, or "dish-faced," as it is familiarly termed, will be soft in temperament if the cavity is far down, but if well elevated between

the eyes, he will generally be a match to the gamest and pluckiest of horses either on the road or in the field. The writer recently had the pleasure of examining a Canadian-bred Polo pony in possession of an excellent sportsman and straight-riding member of the North Durham Hunt. The cavity between the eyes of this pony is most pronounced, suggesting either a freak of nature, or an accident during foalhood—probably the latter, as the indentation is too deep and abrupt to be explained by natural causes.

It is said that "a good horse is never a bad colour," still, colour frequently plays an important part in determining the peculiarities of temperament in horses. Bright bays, browns, blacks, and dark chesnuts are generally good-tempered and hardy constitutionally; while light coloured bays and chesnuts are often hot-tempered, excitable animals, with delicate constitutions. Greys are objectionable on account of their susceptibility to dirt. When shedding their coats, the hairs lodge about the clothes of people who are near them, and are very conspicuous from their colour. For this reason alone, gentlemen will scarcely purchase grey horses, unless possessed of some special qualifications. To neutralise their conspicuous appearance, the horses of the Scots Greys were dyed khaki colour in South Africa, which was said to remain fixed for a couple of months. Grey horses are generally hardy and good-tempered, and as they grow older they become lighter in colour. There are many intermediate shades between the

light and dark of all colours, and, in a general way, those on the darker side will be the better horses, but to lay down definite rules on the subject is an utter impossibility. This subject will be more fully considered in a subsequent chapter. Practice, and not theory, is the regulating factor in the selection and purchase of horses. White markings on the faces and legs are sometimes objected to for matching purposes, but when matching is not a necessity, they should never be considered.

HORSES ARE NOT BORN VICIOUS.

It is sometimes supposed that horses are born vicious, but such a supposition, in the opinion of the writer, is a complete mistake. Vice is imported into their characters, as a rule, by being mistouched, mismanaged, and, to a great extent, by general unkindness. Vice proper is never apparent in the colt; it is only when he becomes a horse that it begins to manifest itself. Were the principle of vice inherent in horses, it would be quite reasonable to expect it in young colts just the same as in matured horses. Vice is never found in a colt if left to himself. Much mischief is often done to young foals by lads teasing them. Foals, played with in this way, acquire tricks which generally develop into the worst forms of vice, and a greater number of horses are ruined, when they are mere foals, by boys, than people are aware of. In fact, foals that have been made tricky very seldom evolve into quiet, useful horses. Boys

and foals are bad companions, but the treatment of the latter will be fully considered in the following chapter. It would be quite safe to enter a field where a number of colts were grazing that had not previously been touched by man, as they would only manifest symptoms of wonder and fear. Were we to lie down amongst them, some of the bolder ones might venture near enough to smell at us, but in no case would they attack us as other naturally vicious animals would, which proves conclusively that vice does not naturally belong to horses, but is imported into their character and becomes an artificial part of their nature. Horses do not kick and bite viciously of their own accord. They invariably acquire such habits through fear and pain, and naturally make use of their heels to repel attacks which their instinct does not enable them to understand.

CHAPTER III.

BREEDING AND REARING.

The scientific method of stock-breeding, although well-known to many eminent breeders all over the country, is not so well understood amongst the generality of agriculturists as it should be; nor do they take sufficient interest in the subject to trace back the line of descent of particular sires which they from time to time purchase into their herds, flocks, and studs. At auction sales of pedigreed stock the highest-priced animals are not necessarily the best, as evidenced by the fluctuations and reversals that occur in the awards at agricultural shows. No doubt different judges base their judgment on different characteristics of stock, which, to a certain extent, is answerable for the inconsistencies that periodically occur, but, at the same time, it cannot be denied that many high-priced sires are bought into herds, flocks, and studs for which they are absolutely unsuited.

The breeding and rearing of horses is a special branch of their management on which a whole volume might be written, but considerations of space

will not permit of going into very minute details on the subject, so a few of the more important hints will be given which may prove advantageous to some readers.

The old-fashioned country horses of the working type are very nearly extinct through the increased and increasing distribution of Shires in the South, and Clydesdales in the North. In most respects this is an advantage, whilst in others it is somewhat of a disadvantage, because fashion, even in horse-breeding, is sometimes more regarded than utility and profit. Ten or a dozen years ago, no cart horses at agricultural shows were considered worth looking at unless extravagantly furnished with the fashionable and aristocratic "feather," but, happily, this craze for hair is dying out, as evidenced in the cleaner-legged horses which are winning at the present day. Excessively hairy legs are good for nothing but accumulating mud and dirt, and from mud and dirt spring cracked heels, grease, and a number of other ailments due to uncleanliness.

SHIRES AND CLYDESDALES.

Shires may be said to be the chief breed of heavy horses in England. The distribution of Suffolks is practically confined to the county from which they derive their name, and need not be specially considered at present. During the last decade there has been a wonderful improvement in Shires. Their quality has been materially added to without impairing

their power and substance, and breeders of Shires have great reason to congratulate themselves upon the excellent results attained by their efforts in improving this useful breed of horses. The coarse hair on the legs has been greatly modified, the bones have been further flattened, and the hoofs considerably expanded in the right direction. The pasterns would still stand lengthening, perhaps, both before and behind, whilst the bone formation of the legs might, with advantage, be further flattened. A little more slope in the pasterns would reduce the concussion on the streets, and the further flattening of the bones would have the effect of reducing splints and other similar enlargements to a minimum. Whilst the pasterns of some Shires may be rather short on the one hand, the pasterns of many Clydesdales are certainly too long on the other. Long, sloping pasterns produce style and elasticity, but tend to weaken rather than to strengthen the propelling power of the limbs. At the same time, unduly long pasterns are unhandy in backing, and accidents frequently occur by horses severely trampling themselves ; therefore, all things considered, a happy medium is the thing to be aimed at for practical purposes. Shires are excellently adapted to the heavy street work in towns, and command very high prices when guaranteed good workers and sound, which is, perhaps, the best advertisement of popularity that they can possibly have.

There is a healthy rivalry between Shires and Clydesdales, which is encouraging so long as it is

kept within reasonable bounds, and the refusal of the directors of the Highland and Agricultural Society to accede to the request of the Shire Horse Society to open classes for Shires at their shows is very unfortunate and much to be regretted, because much good might have resulted to both breeds in consequence of their coming together occasionally for inspection. The decision of the Highland directors is the more unreasonable, since the Royal opens many classes for Clydesdales at its annual shows. The question, often debated, as to whether Shires and Clydesdales are really distinct breeds need not here be discussed. Breeders of Clydesdales, ten or fifteen years ago, regarded quality rather than substance, and hair rather than bone, consequently horses have deteriorated in weight. Were the hair cut from the legs and the flesh reduced from the ribs of many Clydesdales, they would appear little heavier than ordinary tram horses. This defect, however, is being gradually remedied, as evidenced at agricultural shows during recent seasons by the production of several extra heavy animals of great future promise. A good deal can be said in favour of both breeds, and, whilst Clydesdales are in greater demand in Scotch towns than Shires, the latter are decidedly in favour in large English towns. Each breed is specially adapted for its particular class of work, but, it goes without saying, that unless Clydesdales rapidly develop in weight they will continue to take a very second-rate position for street work in the commercial market.

THE HEAVY HORSE MARKET.

Purity of strain is certainly the correct thing for stud, showyard, and crossing purposes, but the requirements of the heavy horse market are:—weight, durability, soundness, and activity. When these qualifications are combined in a horse, commercial men are not inclined to inquire much about pedigree. Style and quality are certainly beautiful accompaniments in a cart horse, but they are not indispensible necessities like substance and power.

The primary object in breeding heavy horses for profit must be for the streets, when prices ranging from £80 to £120 can readily be obtained for the better class of heavy, sound horses. The days for breeding a lighter class of horses for purely agricultural purposes are past, because American horses can be purchased for £25 or £30, which prove fairly useful in working the lighter class of farms. It must not be supposed, however, that American horses are equal to take the regular place of British agricultural horses on heavy land. This idea looks all very well in theory upon paper, but in practice it is almost impracticable. Many farmers who have tried Americans will readily confirm this opinion. They are useful in filling up gaps, and, with the misfits for the streets, the two classes combined are generally to be found in sufficient numbers to meet the customary waste in agriculture. So far, America has been unable to produce the class of horses required for the London

streets, and the monopoly is undoubtedly enjoyed by Shire breeders. For breeders who cater for the commercial market rather than the show-ring, success will be more readily attained by a judicious amalgamation of Shire and Clydesdale blood, in about equal proportions, than by prosecuting a system of absolutely pure breeding. This blend must be insisted upon, even at the risk of shocking the sensitive instincts of breeders of pure-bred stock. Some of the best heavy horses of the day, as proved both in the show-yard and the sale-ring, have been bred in this way. The size and power of Shire mares, combined with the quality and activity of Clydesdale stallions, produce a class of heavy horses which, for commercial purposes in towns, is "second to none."

MULES.

Mules, as is well known, are the progeny of a cross between jackasses and pony mares. The progeny of the converse cross are called hinnies. The latter are not much bred in Britain, though in Ireland they are produced in comparatively large numbers. It is generally held by naturalists that mules will not breed, although isolated cases are occasionally reported when female mules have been said to bring forth young. Those reports, however, are generally from out-of-the-way places and cannot be authenticated. There is a certain prejudice existing against mules in this country, and it is doubtful if their breeding will ever become very popular. On the

whole, they might be too light for agricultural purposes, though they might, with advantage, be more largely employed in light van work.

ARMY TRANSPORT PURPOSES.

The work for which mules are apparently best adapted is for army transport. Very large numbers were bought from the United States and elsewhere for this purpose during the recent war in South Africa, and were sold for highly remunerative prices by the breeders, ranging from £25 to £40. The qualifications of mules for this purpose are many. They are very easily kept in the matter of food, and would thrive in places where ordinary horses would starve; they are very durable and comparatively free from sickness; they withstand the dreadful attacks of the tsetse fly better than horses, as their hides are hard and tough. They move along more rapidly than horses at a walking pace, are very sure-footed, and admirably adapted for picking their way with mountain batteries over rough mountain tracks and precipitous kopjes; they can carry very heavy weights, are good workers, and docile. As a rule, mules live rather more than double the age of horses; they are generally less nervous, and can withstand very sudden changes of heat and cold with comparatively little inconvenience and danger. For these reasons, they are admirably suited for army transport in foreign countries. It is held by some authorities that mules, when overwhelmed by fear, have an

unfortunate propensity to stampede, as evidenced at Nicholson's Nek during the recent campaign ; but, when under proper human control, this peculiarity can generally be counterbalanced, unless under very unusual circumstances.

BREEDING OF MULES.

Mules are very largely used in the United States for agricultural purposes, and are considered superior to horses. They have increased over one hundred per cent. during the last two decades, which forcibly illustrates the importance which is attached to them in that country. They are generally used in India for the same purpose, and are held in high repute by those competent to form an opinion on the subject. The best class of jackasses are imported into the United States at large prices for stud purposes. The United States mules are considered superior to South African mules, and bring correspondingly higher prices. It is affirmed that very indifferent mares in the United States breed sound progeny when crossed by jackasses, and that they do not transmit hereditary disease, but such assertions require to be accepted with the proverbial grain of salt. It is possible that the violent cross of blood may tend in this direction, but how it should it is impossible to say ; anyhow, it would be a very unwise principle on which to build a healthy and improving stud. By using a proper class of mares, mules are sometimes bred which grow to sixteen hands, and even more.

SELECTION OF SIRES AND DAMS.

Too often are the characteristics of dams forgotten in the purchase of the sires, which is amply illustrated by the comparatively low average prices obtained even for some very old-established pedigreed stock. The general principles of breeding are easily understood and practised. They are founded on the broad truism that "like begets like," so that whatever characteristics are possessed by the sires and dams may naturally be expected to be inherited by the progeny. It is here where the scientific skill of up-to-date breeders displays itself—here, where eminent and ordinary breeders should join hands, so that science may become more practical, and practice more scientific. The respective properties of sires and dams should be fully considered, so as to procure the desired type by the amalgamation of blood. When there are widely distinguishing features in the sires and dams, the progeny will generally inherit the peculiarities of both in a modified degree; but this is not always the case, for occasionally the offspring will develop the characteristics of the sires, and sometimes those of the dams. Generally speaking, however, the combination of extreme qualities will naturally produce normal qualities in the progeny, as the tendency is to neutralise extremes and modify prominent points generally.

It is exceedingly difficult—almost impossible—to combine quality and size in the same animals to any

appreciable degree, yet this is the ideal to which breeders must endeavour to attain. Dams possessing size and substance must be mated with sires of acknowledged quality, and *vice versâ*. The selection of sires is probably more important than the selection of dams, in consequence of the comparatively larger number of their off-spring; therefore, for the improvement of stock, judicious judgment must be exercised in their selection. Their pedigrees should be closely studied previous to purchasing, and high pedigrees rather than high prices should govern breeders in their choice. Not that high-priced sires are not highly-pedigreed, but because they are not always specially adapted for mating the dams for which they are intended. Where there are weak points in the dams, correspondingly strong points must be looked for in the sires, and *vice versâ*. It is by skilful drafting, selection, and mating that defects are worn out, and style, quality, substance, and good general conformation combined in the same animals. When once a definite type has been fixed, constant attention on the part of breeders is necessary to maintain its high standard of excellence, otherwise a declinature will occur which may manifest itself in several ways. The less new blood there is infused into old-established pedigreed stock the better, so far as preserving a uniform "family likeness" is concerned, only consanguinity may be carried too far, and in-and-in-breeding, unless conducted with consummate skill, may result in deterioration of size

and delicacy of constitution. The best system of maintaining the size and stamina of stock, where in-and-in breeding is closely practised, is to have the sires and dams as far removed from each other in blood relationship as possible, and at the same time to scrupulously weed out all inferior animals below the standard of type aimed at. The world-famed Border Leicester flock at Mertoun is an example of what success can be attained by the principle of in-and-in breeding, when conducted on scientific lines.

In breeding harness horses, Hackneys, and hunters for average all-round wear, the sires should always be finer and higher bred than the dams, while they should not in ordinary circumstances be consanguineous. If this exceedingly important matter is neglected, the progeny may be less symmetrical, with soft, comatose temperaments and delicate constitutions.

Mares and stallions of the very best stamp should be carefully selected for breeding purposes, as good stock can never be produced from commonplace, indifferent sires and dams. They should be thoroughly sound, with good constitutions and temperaments, symmetrically formed, and free from every peculiar cicatrice or malformation; although, even with the greatest care, a *lusus naturæ* occasionally happens.

Some breeders breed from any kind of stock with a nonchalance which, if not quite ignorance, is the twin brother to it. Thus, the fifty per cent. of unsound horses we see around us are largely ac-

counted for. If a mare goes lame, many farmers will breed from her and risk all consequences. In only too many cases, also, they consider the service fee of a stallion more than his merits. They will engage a stallion for a pound or two less, forgetting, by this false economy, that there may easily be £40 difference in value between the progeny of a first-class and the progeny of an inferior stallion.

Everything in the nature of splints, sidebones, ringbones, brittle hoofs, sand cracks, curbs, spavins, stringhalts, broken wind, crib-biting, wind-sucking, and all the other diseases that horse-flesh is heir to, should be carefully avoided. Although many of the diseases mentioned are produced by overwork and strains, yet a number of them are hereditary, and will appear in colts even before they are handled. In addition to the foregoing, soil and climate are also important factors in the production of good stock.

BREEDING FROM OLD STOCK.

It is generally a mistake to breed from old stock, as the progeny is never so robust and durable as when bred from young matured stock. At the same time, very young mares should be mated to moderately old stallions, and *vice versâ*. In this way there is greater aptitude to conception, and the progeny are better than when either very young or very old animals are mated together.

Although it is difficult to say at what age mares are best adapted for breeding, it stands to reason that

it is better to breed after maturity has been reached than before. In breeding from fillies, their development is considerably arrested, and it is natural that their progeny cannot have the same vigour as the progeny of thoroughly-matured stock.

Many people attempt to judge the ages of horses from the depth of the cavities above their eyes, but are unaware, perhaps, that the progeny of old stock have generally deeper-marked cavities at three years of age than the progeny of young stock have at seven. Thus, people who rely on this point in determining the ages of horses are very frequently deceived. A concise method of telling the ages of horses will be explained in another chapter.

TELEGONY.

The theory of telegony is one upon which scientific opinion is probably pretty equally divided at the present time. It is one of these problems in the science of stock-breeding requiring such careful observation over a necessarily extended period, that great time must elapse before definite facts can be recorded, if, indeed, they can ever be authentically ascertained so as to raise it from a possible theory to a well-founded truism. With the exception of Professor Cossar Ewart's experiments at Penicuik, few systematic attempts have been made in this country to solve the problem. It is one involving great expenditure of money, much labour and experience, careful observation, and the faithful recording

of every detail, however insignificant, that bears upon the subject. On the completion of the Penicuik experiments, much light may be thrown upon the question, which should be full of interest to all breeders of stock, and whether the experiments come to a successful issue or not, great credit is certainly due to Professor Cossar Ewart for his disinterested labours in this connection.

It is well known to breeders of all kinds of stock that pure-bred sires are more impressive than under-bred or cross-bred sires, and that, by careful selection and mating along scientific lines, under-bred stock can be raised in time to come within the term "pure-bred." This accepted fact neither proves nor disproves telegony, but it seems natural to suppose that, were the original germ permanently fixed by first sires, under-bred features would be more slowly worn out, and conversely, pure-bred characteristics would deteriorate less rapidly. It is held by many breeders that parents of either sex, possessing the purer breeding and fixity of type, are the more prepotent, and that the progeny incline to whichever side the balance of breeding and type lies. Telegony, however, if it does exist—and although there may be no positive proof of its action, there are many apparent indications of it—necessarily emanates from original sires by the inoculation of the female ovum during coition. With pregnancy, saturation follows, and it is held that the original male strains always remain hermetically associated with the female blood to a varying

degree in correspondence with the prepotency of individual sires. The characteristics of first sires may make themselves apparent in innumerable ways—in colour, conformation, constitution, and temperament, but they may be so slight that they are practically imperceptible, and, on the other hand, they may be so prominent as almost to bring the theory of telegony within the range of established truth. By continuous breeding, the distinctive features of original sires are gradually reduced, though they may never absolutely disappear.

All breeders of stock are familiar with reversion, or atavism, as it is occasionally called, and even under the care of the most experienced breeders reversions occur from time to time in the most unaccountable manner. They are more frequent, however, during the formation of particular breeds of stock, than when breeds are permanently fixed and established. This principle is borne out in all classes of stock; thus, in-and-in breeding, whilst in some cases it may lead to deterioration of size and delicacy of constitution when practised unscientifically, is no doubt responsible for the excellency of all kinds of British stock at the present day. But reversion and telegony are essentially distinct, because the former peculiarity may revert along the female just as easily as along the male line of descent, the balance naturally depending upon whichever parent possesses the greater prepotency. Telegony, as already explained, can only revert to original sires. In this way telegony, if it

be accepted as a fact, must be understood to be absolutely separated from atavism and variation; on the other hand, if it only remain a hypothesis, it is difficult to say what is atavism and what is telegony, or to deny that both terms are identical in their application. Instead of reversion and variation being always consequent upon the entrance of disturbing influences in the line of heredity, they are probably just as likely to occur from outside influences in environment, whether gradual or violent, during the impressionable period of gestation.

Violent crossing is instrumental in producing many reversions and variations, and in arresting fecundity. This is exemplified in unfertile hybrids of all species, but this is probably more the experience of fanciers than regular commercial breeders; and, although "like begets like," it is impossible to forecast the results when violent crossing is resorted to, as the type of progeny may radiate in all directions except the one desired. This is naturally a domestic observation, because the rigorous law of nature precludes this intermingling amongst animals in a wild state.

The law of "the survival of the fittest," it is said, operates in the latter circumstances, and maintains each species in strength and purity, although, on the authority of the late Duke of Argyle in "Evolution Cross-examined," there is no more barren phrase in existence than that coined by the late Mr Herbert Spencer. It can only be understood as a

modification of Darwin's definition, and whether it may be regarded as an improvement on the original is, of course, open to debate. Little can be done by crossing to solve the problem of telegony; indeed, its effects will tend rather to confuse the issue, so that to arrive at reliable conclusions, pure-bred animals are necessary for experimental purposes.

If the Biblical account of the spotted cattle produced by the ingenuity of Jacob be correct, it would seem that he had divined their bovine susceptibilities and practised the method of increasing his individual estate on thoroughly scientific principles, because he supplied the wands that produced the charm, made some mathematical calculations, and determined the results with consummate skill. Without regarding this Biblical story very seriously, there are many instances of freaks of nature due to outside influences occurring within the experience of most breeders. Whether these upsetting influences affect the germ at the time of copulation, or are caused at a later and more impressionable stage of pregnancy, it is impossible to say, though scientific opinion inclines to favour the former rather than the latter theory. Sudden changes in environment, change of food, climatic influences, new companions, and occasional frights doubtless play a prominent part in the production of freaks and variations; indeed, these are well-worn facts which come within the everyday experience of most breeders of stock. In no class of animals is the idea of telegony probably more

clearly conveyed than in dogs, and most fanciers are very scrupulous in the use of first sires. There is a tendency to narrow telegony down to a reproduction of colour and shape, and, in the opinion of the writer, this is a mistake, because, if it can be proved to operate at all, there is no reason why it should not manifest itself in all or any faculty, both physical and mental. If this be admitted, the question becomes much more complicated and difficult of solution. Thus, as already mentioned, much time, careful study, and close observation are necessary in order to determine its authenticity.

SAFETY IN WORKING BROOD MARES.

Some breeders do not work their mares when they are in foal, under the impression that it is injurious to them. It is, however, quite a mistake, for, if regularly and carefully wrought, they will foal more easily and with greater safety. Heavy carting and much backing during the advanced stages of gestation should be avoided, as any undue strain might displace the fœtus and cause abortion; but if carefully managed in all ordinary yokes they will, as a rule, work up till the day of foaling with perfect safety. It is safer to work mares in chains rather than in shafts, and they should be kept off the roads when in a slippery condition, as straining and slipping on ice is a prolific cause of abortion. In fact, light exercise is the very life of them. Parturition is generally difficult with idle, over-fed mares.

CONDITION OF BROOD MARES.

Mares should neither be too fat nor too lean, but in fresh, healthy, and thriving condition. There is far greater aptitude to conception, and proportionally less danger at foaling, than when they are either built with flesh or poor and thin.

Immediately after fecundation, mares should be returned to the exact circumstances of their previous environment. If they have been working, grazing in the field, or standing in the stable, they should always be returned to the same position, so that nothing different in the surroundings may appear to excite them. In all cases, they should be given the same food. Some mares are very excitable during their conceptive periods, while others are dull and languid.

MANAGEMENT OF STALLIONS.

Stallions should be well fed on oats, beans, and hay, with a bran mash every alternate night. Like mares, however, they should not be loaded with superfluous flesh, but kept in fresh, fairly hard condition. When stallions are covered with fat, they are a burden to themselves, and their weight is often instrumental in producing splints, spavins, and other bone enlargements. In addition to this, they cannot serve mares satisfactorily, and in the event of illness there is much greater danger, so that a reasonably hard condition should be aimed

at to keep stallions fit for the road during the travelling season. They should always have plenty of exercise to keep their legs in order. Many diseases of the legs are caused by over-feeding and insufficient exercise.

Thoroughbred stallions will travel from twenty to thirty miles a day, and serve seventy or eighty mares in the season; while Clydesdales and Shires will travel fifteen or eighteen miles and serve sixty or seventy mares. Colts of three years of age, however, should not be allowed to serve more than thirty-five or forty mares. Serving too many mares during the first season spoils them for the next.

HARNESS HORSES, HACKS, AND HUNTERS.

The best way to breed a half-bred harness horse is to cross a cart mare with a thoroughbred or Hackney stallion; or, if a lighter stamp is desired, a half-bred mare should be used. Better action will be obtained from the Hackney than from the thoroughbred cross.

The best kind of hack is produced from a half-bred cob mare and a thoroughbred or Hackney sire, or a half or three-parts bred mare if a lighter stamp is wanted.

We are not treating here of pure-bred pedigreed stock. High-class studs can only be built upon pure-bred foundations after years of careful selection and mating, and at a large expenditure of capital, to attain to anything like front-rank success. Our

recommendations are rather intended to apply to farmers of all classes, who may keep a few odd mares for doing catch work about the farm, and who may turn them into some profit by judicious breeding at comparatively little cost. This idea is very practical, because probably nine-tenths of the mounts of the Imperial Yeomanry and cavalry regiments are drawn from this class of horses.

Pedigreed Hackneys, high-class hunters, and thoroughbreds are unsuitable for the work, because the prices which they realise are prohibitive.

With a large increase in mounted infantry in future, hardy horses, bred in this way, may probably be in great demand, and horses of this class cost practically nothing for breeding, and will pay fairly well at £40 a head.

A heavy-weight hunter should be bred from a strong half-bred mare and a thoroughbred stallion—their respective dams having been originally crossed the proper way. It is a pity that hunters are not classified as a distinct breed, but owing to the valuable correspondence which has recently occurred in the *Live Stock Journal*, it is pretty safe to predict that we are within a measurable distance of attaining this desirable object. The Hunters' Improvement Society is doing much useful work in improving the breed of hunters, and in the near future excellent results are likely to be achieved in consequence.

Hunters and all other classes of horses will be fully considered in the sections that deal with them.

HACKNEYS.

There is probably no finer breed of horses in the British Isles—probably no finer breed in the world—than Hackneys, and the purity of their blood can be traced as far back, if not further, than thoroughbreds. The latter are descended from Byerly Turk, the Darley Arabian, and the Godolphin Arabian. Those horses were imported between 1689 and 1730, and have left their mark largely on the thoroughbreds and Hackneys of the present day. Perhaps the exquisite symmetry of Hackneys is due to the prepotency of the beautifully-shaped Darley Arabian more than to any of the other imported stallions. The action of thoroughbreds is generally low and defective in consequence of their having been bred entirely for speed during the last two hundred years. The action of Hackneys, on the contrary, is dashing and magnificent. Lovers of horses enjoy nothing better than the straight and stylish stepping of a well-trained Hackney. Hackneys are generally possessed of hardy constitutions, beautiful manners, and are very good-tempered and docile. They have splendid conformation, undoubted courage, wonderful staying power, and, for soundness, they are probably unrivalled by any other breed of horses in the United Kingdom, or out of it. If possible, Hackneys should be bred whole-coloured, as many people object to white markings for matching purposes. Chesnut is a colour which is rapidly increasing amongst Hack-

neys, and it is very much in fashion at the present time. Hackney stallions are more suitable for the production of horses for the road than thoroughbreds, because they combine all the essential qualifications for the road in a high degree. By crossing pony mares, light and heavy hunter mares, van and even cart mares, all grades of horses can be produced for the various requirements of the road. There are many excellent studs of Hackneys in the country, and long prices are forthcoming when they change hands. In fact, the value of a beautiful, well-trained Hackney, like the value of a well-bred, thoroughly-trained Polo pony, can scarcely be estimated. The demand for both is rapidly increasing. With regard to the latter, a true type has hardly yet been established, and the breeder who succeeds in forming and maintaining the desired type, may safely count upon making his fortune; but of Polo ponies more anon.

BEST PLACE FOR A MARE TO FOAL.

This subject is of supreme interest both to naturalists and breeders of stock, and an intelligent knowledge of the habits of farm animals in a pure state of nature and under high domestication naturally tends to develop a better system of management in all departments. Some naturalists go so far as to affirm that there should be no interference at the birth of domestic animals, and argue that the organisation of nature, being perfect, renders an interference with its laws not only unnecessary, but highly danger-

ous as well. The inconsistency of this argument will be at once apparent when it is pointed out that the very fact, which is evidently forgotten, of animals being under a high state of domestication is a direct interference with the laws of nature itself. As soon as animals are domesticated, absolutely natural laws become impossible because of the necessarily impaired character of their several instinctive faculties, consequent on their circumscribed environment. It is well known that the instincts of animals in a state of nature are much more acute than those of animals under domestication. The enforced "struggle for life" necessitates an intense development of the instinctive faculties of wild animals, without which existence would become impossible. With animals under domestication, the historic phrase of Darwin and Spencer largely ceases to operate, at least, it is only intelligible in a very comparative sense, because the faculty of self-preservation is reduced to the commonest instinctive function, viz. :—*that of eating*. In this way, naturalists and stockbreeders regard animals from an entirely different standpoint; the observations of the former are based upon animals in a state of nature, and the observations of the latter upon animals under domestication. This naturally leads to a sharp division of opinion between the more advanced thinkers of both classes; and to arrive at a common-sense view of the treatment of farm animals it is necessary to steer a medium course, by blending the observations of distinguished naturalists and ob-

servant stockbreeders together, and thus combine the valuable knowledge of both.

There is all the difference in the world between the wild mare of the prairie and the in-bred pedigreed Clydesdale and Shire. The highly-developed instinct of the former enables her to roam over a large area of ground in search of the materials of existence, and to take good care of herself when unexpected emergencies arise. This enforced activity in her progenitors for thousands of years has developed her instinctive functions to their highest capacity; whilst those of the Clydesdale and Shire, on the other hand, have been reduced by domestication to the lowest point—bare rudiments of the former. It is a mistake to imagine that domestication develops the instincts of animals; the habits they acquire by civilised association with men and things have no continuity, and are never inherited and reproduced by their progeny, which is conclusive testimony that instinct is only maintained under natural laws, and that all acquirements under domestic existence are necessarily artificial. Domestic acquirements are never contributive to the general betterment of animals; only those specialised by training and favourable surroundings attain to a kind of comparative civilisation—a civilisation, however, which is hampered and circumscribed by the narrowness of its understanding, and which dies with the animals that acquire it.

When parturition approaches, the wild mare seeks a sheltered place and foals, as a rule, in safety. Her

maternal instincts are keen and solicitous; her attentions are rapidly reciprocated by the foal, which naturally inherits all the acute characteristics of its dam, and in an incredibly short time the pair understand each other, the latter resuming her accustomed roving life in company with the former, which soon becomes initiated in the ups and downs of its wild prairie existence.

When we compare the condition of the Clydesdale or Shire mare at parturition, the contrast of instinctive self-reliance is marvellous indeed. Here, nature must be assisted or probably fifty per cent. of Clydesdale and Shire foals would never live to suck their dams. The limp, ungainly youngster is a sprawling mass of legs and stupidity, whilst its dull mother often regards it with comparative indifference, or, if she be unusually solicitous, the chances are that she may trample and injure it in some way or another. Very often milk requires to be drawn artificially from the mare, and the foal guided to the teat to induce it to suck, otherwise it would probably die from hunger. Thus, instinct, under domestication, degenerates into a dull stupidity which *must* be assisted to ensure success; but the assistance should always be as close an imitation of nature as circumstances permit, and a scientific knowledge of natural history, combined with practical experience, will prove invaluable.

About ten days previous to a mare's period of foaling, she should be placed in a comfortable, roomy,

loose-box, and fastened to a piece of delicate cord in the corner. An old piece of net-backing is very suitable. The reason for fixing the mare's head in the corner is to prevent her getting into an awkward and dangerous position when foaling. Foals are frequently injured, and sometimes killed, by mares lying down against a wall to foal. As soon as mares have foaled, they will generally break their delicate binding in their eagerness to reach their foals, and turn round in perfect safety.

INDICATIONS OF FOALING.

It is always desirable for an attendant to be present when mares are foaling, if possible. The duration of a mare's period of gestation is forty-eight weeks, and they generally foal pretty close to their time, though not always. Some mares will drop their foals ten days before they are due, and others will carry them ten days beyond, which practically means a fluctuation in their period of pregnancy of three weeks. In most cases a creamy kind of wax forms on the points of the mare's teats, and they rarely carry their foals beyond forty-eight hours after its formation. But, while this is a rule, it is not without exception, as some mares do foal without the least indication of wax. The sliding of the bones at the root of the tail is another reliable guide that parturition is approaching. The immediate signs of foaling are too palpable to require description, and some mares will foal in ten minutes after

the first violent preliminaries are observed. When an attendant is watching a foaling mare, he should keep perfectly quiet in some corner, unseen by the mare, as a number of mares are very shy, and will scarcely foal if anyone is present. No manual assistance should be given unless absolutely necessary. Nature generally does her own work best when left alone. In ordinary cases the fœtus is expelled in from five to fifteen minutes. When mares cannot foal naturally of their own accord, something is sure to be seriously wrong, and the services of a qualified veterinary surgeon should be speedily obtained. In such circumstances, mares do not struggle long before giving in, much, of course, depending on their constitution and temperament.

HOW TO MANAGE THE FOAL.

As soon as the foal is born, the attendant should break the sheet that covers its head, although, in most cases, it is ruptured by the action of foaling. If this is not done, the foal will be unable to breathe, and will, of course, expire at once. The navel-string also should be noticed. In cases where it is violently severed at birth, blood will discharge so rapidly that the foal will not live for five minutes. The navel-string should be tightly tied with a piece of cord about an inch and a half from the body, which stops the discharge at once. The cord should be dipped into a suitable antiseptic previous to application. Indeed, it is a safe plan to tie the navel-strings of

foals in all cases, whether they need it or not, as the entrance of microbes and dangerous bacteria will thereby be prevented. The cord will do no harm, and the protruding part of the navel-string will wither up and fall off in a week or two. After this a little milk should be drawn from the mare and put down the foal with the aid of a spoon, which will strengthen and enable it to get upon its legs sooner.

Next, the mare's vessel should be washed with lukewarm water, which will remove all the wax and dirt that may have accumulated about it. At the same time the washing will effectually neutralise any feeling of ticklishness about the udder. Many mares will strike out violently at the first touch of the foal if this important item of attention is neglected. Many foals are injured and killed in this manner, not from any wickedness in the mares, but from a feeling of irresistible ticklishness.

When the foal attempts to rise, it should be steadied gently by holding it by the tail with one hand, while the other is placed round its breast. When it has quite gained its feet, the attendant should continue holding the tail with one hand, while its mouth is guided to the mare's teats with the other. Foals will not be forced to suck, they must be coaxed into it by gentle manœuvring at first, until they get hold of the teats and draw the milk of their own accord, when they will generally look after themselves, if all goes well with them in other respects.

JEALOUSY IN MARES.

There are some mares that display great jealousy and suspicion concerning their foals. Great care must always be taken in moving about them, for, occasionally, in attempting to strike the attendant they will hit their foals, with fatal results. High-tempered mares of this kind should be disturbed as little as possible. They are generally good and careful nurses when left alone with their foals. It is only when the attendant appears that they become excited and dangerous. They are unduly solicitous about their foals, and misunderstand the action of their attendants, on whose attention they are, of course, absolutely dependent. The halters should not be taken off mares of this kind, and they are more easily caught and managed when necessary. When feeding them, the attendant should move quietly, without jerking and hurrying too much about the loose-box.

THE TREATMENT OF MARES.

It is a good plan to give mares a bran mash twice a day for a week or ten days after foaling, which is very essential to their welfare. They should be fed with hay, corn, and a few roots. The cold air should be carefully taken off their water. Scarcely anything is calculated to do more harm to newly foaled mares than cold spring water. Mares with their foals may be turned out to grass in the

middle of the day a week or two after foaling, if the weather is propitious, and brought under cover at night. This may be continued for three or four weeks, when, unless the weather is very inclement and foals unusually weak, they may be permitted to lie out. Of course it is necessary to keep very early foals inside when there is no grass. The dams should be liberally fed with soft food to keep them laxative. Constipation in the bowels should be carefully guarded against until the mares are turned out to grass.

THE ADVANTAGE OF EARLY FOALS.

"An early foal is always an early foal," is a saying which is perfectly true, because a March or April foal gets the benefit of the summer's grass, and is consequently older and stronger to overcome the hardships of the ensuing winter. A late June or July foal is proportionately weaker, and is generally at best but a mere foal even the following spring. Thus it is a great advantage, when practicable, to have foals early in the season. The question at what age the growth of horses ceases is difficult to determine. Although five years is the age when horses are supposed to reach maturity there are many cases on record where they have continued to grow till the age of seven. At the present time the writer has a horse that grew two inches between the age of five and seven years.

HOW TO PROCURE EARLY FOALS.

In order to ensure March foals mares should be sired in April. About the middle of February mares that are intended to have foals should receive liberal and generous treatment in their food, so as to produce regularity in their periodical seasons of conception. They should always be tried with the stallion every week from the beginning of the season until served. When served, they need not be tried again for three weeks, at the end of which, however, they should again be tried weekly all through the season. Mares vary a good deal, and to guard against missing them this is the safest system to follow. Many breeders will not try mares until they have been turned out to grass about the middle of May, thus late foals and barren mares are the rule rather than the exception under such conditions. Mares usually come in season in the course of eight or ten days after foaling, and experience proves that they are more likely to conceive then than at subsequent periods.

EARLY AILMENTS OF FOALS.

It is necessary to watch foals very closely during the first week of their existence, in order to see that their bowels are working thoroughly. Constipation is dangerous, and the peculiarly tough, adhesive nature of their excrement renders its evacuation both difficult and painful. Prompt attention is necessary, or

fatal consequences may soon follow. Castor oil may be given with advantage, and mild injections administered, which will generally have the desired effect.

Any difficulty with the urine is a very serious matter, and very little can be done to young foals beyond covering their backs over with steaming rugs in order to keep them warm. The penis of colt foals is sometimes doubled back in the sheath, but this is easily remedied by inserting the finger, well-oiled, and bringing it forward to its natural position.

WEANING FOALS.

Foals may be weaned when they are from sixteen to twenty weeks old, according to circumstances. The termination of their sucking period will depend much upon whether the mares are required to work. If they are only kept for breeding purposes the foals may be allowed to run longer with them. A number of brood mares, however, are worked in the regular yokes of the farm, and are taken in during September for harvesting operations, when the foals should be taken off.

A little milk should be drawn from the mares daily for a week after the foals are taken off, and in this way it will gradually leave them without injury or inconvenience.

Foals should be confined in an airy loose-box for a week, and tares and hay, with a little corn and plenty of fresh water should be given them.

In the course of a week they will generally have forgotten their dams, and may be turned out to clover fogs or young grass. They should be brought under cover at night, and fed with hay and oats. All young colts must be liberally fed, and especially foals. The first year is the worst to get over. Foals that are poorly treated in the way of food during the first winter never really throw off the bad effects. Their growth is retarded, while their condition is poor, and they will generally develop into mean-spirited, unthriven horses.

ADVANTAGES OF A ROUGH HILL.

It is a decided advantage to breeders of horses to have a rough undulating hill on which to run colts during the summer, with plenty of whin bushes, rough heather, bogs, well intersected with open sheep drains, and, if possible, in close proximity to a railway. The rough, uneven nature of the ground improves their action immensely, develops their muscles, and accelerates the natural process of their ossification ; whilst the whins, bogs, and sheep drains accustom them to encounter and negotiate similar obstacles with great coolness and aptitude, and generally to take better care of themselves ; and the near proximity of a railway has a marvellous effect in familiarising them with the appearance of steam.

HOW TO WINTER COLTS.

It is a capital plan to allow colts to run out all the winter, provided there is a large warm shed which they can take advantage of for shelter during stormy weather. The shed should be placed in a convenient part of the field, and the entrance to it must be both high and wide, otherwise colts are likely to injure themselves in passing out and in. At the same time, due regard must be paid to light, ventilation, and sanitation.

They should have a liberal allowance of oat straw or meadow hay, with a feed of oats morning and night. The practice of running colts out during the winter has a tendency to harden their constitutions, and the abundance of natural exercise is the very life of them.

SEPARATE YEARLINGS FROM OLDER COLTS.

Yearlings should always be separated from older colts, while their food should be more nutritious, and their requirements will best be met by substituting clover hay for straw fodder. Not only is the straw deficient in nutritive substance for young, delicate flesh and bone-forming purposes, but the older and stronger colts will invariably drive the yearlings back. They will never get forward to eat until the former retire satisfied, and if there is a sweeter rip of straw than another, it will be carefully selected and only the refuse left for the poor handi-

capped yearlings. Therefore, if all farmers who go in for rearing colts will take the trouble to separate them—the weak from the strong—they will be amply compensated for their labour and humanity by the enhanced improvement of the yearlings.

MANAGEMENT OF THEIR FEET.

A natural grass hill is also very valuable in the preservation of the feet of colts. The surface is much softer than a field that is under regular rotation, and their hoofs, in consequence, are less liable to become worn and splintered. Care should be taken not to over-stock pastures. When over-stocked, they become tainted, and may have a very injurious effect on the constitution of the colts. To obviate this, pastures may be stocked with cattle until all tainting caused by colts has been removed. When a natural grass hill of this kind is unavailable, it will be found advantageous to shoe colts in the fore-feet as they are apt to wear the outer walls of the hoofs, laming themselves, and not infrequently growing into "club" feet, which are extremely awkward and ugly. If the hoofs are not allowed to grow too far over, they can generally be cured by careful shoeing ; but if permitted to get thoroughly twisted it is impossible to put them straight. The shoes should be wide so as not to retard the natural growth and expansion of the hoofs, or narrow, contracted feet will be the result. They should also be removed occasionally, as the hoofs of colts grow very rapidly when protected

by shoes. The shoes should be made as light as possible, consistent with the weight of the colts, and perfectly flat without heels.

THE DOCKING OF COLTS.

Probably the best method of docking colts is simply to sever the tail at the required length by the ordinary docking shears, then gather the hair tightly over the stump and secure it firmly with a piece of strong cord to prevent undue bleeding. It is quite unnecessary, as a rule, to cauterise the stump when the hair is firmly tied down over it, as it only aggravates the pain. The blood lodges in the hair and very soon stops of its own accord. The cord should be removed an hour or two after the operation, and it is very rarely indeed that any serious consequences follow. Even in castration firing has largely become a custom of the past. April is generally the best month of the whole year in which to dock colts, as it is neither too warm nor too cold, and during that month flies are not numerous. The presence of flies in large numbers is a source of constant torture to green wounds. It is, however, advantageous to dock colts when they are mere foals at six weeks old, as it is easier, simpler, and safer of accomplishment, and the same directions should be followed as given in the case of older and stronger colts.

CHAPTER IV.

SHETLAND PONIES.

Shetland ponies are probably the smallest breed of horses in Europe, and their native home is in the Orkney and Shetland Islands. A difference of opinion exists as to whether these ponies were introduced by the Norwegians in their invasion of Shetland during the ninth century, or whether they were indigenous to these islands before that period. The majority of evidence is in favour of the latter contention, and it is held by many competent authorities that Shetland ponies were used by the Celtic natives as far back as the fourth and fifth centuries.

CHARACTERISTICS.

The chief characteristic of Shetland ponies is their small size. They range in height from nine to eleven hands, and are comparatively thicker and broader in proportion to their height than most other breeds of horses. They are hardy constitutionally, and can endure great fatigue, whilst their extraordinary strength is marvellous. They possess good tempers, are very sagacious and docile, and are easily trained to all

kinds of work. Like mules, they are very sure-footed, which no doubt is a hereditary acquirement after running over these rough islands for so many centuries. They are practically free from hereditary diseases which is probably due to the comparatively wild state in which they are reared. With natural food and shelter they are more immune from disease than horses under greater domestication. In colour, they vary from dun, chesnut, bay, brown, and black. The last-named colour predominates, and is considered the characteristic colour of the breed. There are also skewbalds and piebalds, but these form an unimportant minority, and are not desirable as a rule.

BREEDING.

Shetland ponies have been much improved in quality, conformation, and bone, and this, to a great extent, is due to owners of large studs who have the means and material at command. Crofters, who breed these ponies in the islands, are too poor to give fancy prices for pedigreed pony stallions, and, in consequence, a good deal of indiscriminate breeding is prevalent. The ponies are allowed to run over the rough outer commons during summer, and are brought into the inner commons during winter. Unless the ground is covered with snow they practically receive no artificial food, and are never brought under cover at all, which treatment no doubt explains the wonderful hardiness of their constitutions. In their natural habitat the hair on their bodies grows

to an abnormal length, and it is generally well into summer before they shed their winter coats. The foals are allowed to suck their dams for about twelve months, after which they are weaned and sold, and in this way mares have foals practically every alternate year which certainly cannot be regarded as good management. Were foals weaned in the usual way, however, expenses by hand-feeding would necessarily be incurred in order to keep the youngsters alive. They are pulled through the first year more easily with the aid of their dams, and so the crofters console themselves that what they lose in time on the one hand they gain in value on the other; but there is little question that the more up-to-date system of management, whereby mares would produce foals every year, would be much more remunerative.

In south-country studs, where warmer climatic conditions prevail, the chief point to aim for is to breed them small. Small mares and stallions, from a recognised small strain, must be mated together. Unusually small ponies appear occasionally by accident, but, unless they are bred down through an acknowledged small strain, it would be very unwise to breed from them, because the progeny are almost certain to revert to increased size, particularly in a warmer climate. With no extra feeding, no artificial shelter, and careful selection and mating, however, this tendency to increase in size can generally be counteracted, as evidenced by the excellent ponies

which are produced in south-country studs at the present day. In selecting mares and stallions, particular attention should be given to their hocks, because it is in that region where the heavy strains of the coal mines generally first show themselves. Crossing Shetlands with other ponies has occasionally been tried, but with little success. The cross generally tends to increase the height, which is the one thing of all others which must not be done; therefore, small ponies can only be produced by purity of breeding, and there are no ponies small enough to push the Shetlands out of their well-deserved position.

USES OF PONIES.

The chief work for which these ponies are required is for drawing coals in the mines. Owing to their small size they are specially adapted for hauling trucks along the branch lines where the seams of coal are low. In many coal pits the smallness of ponies is a *sine quâ non*, and, generally speaking, the smaller they are they are the dearer. There are many seams of coal in the north of England so low that only ponies of from nine to ten hands are capable of working in them. They are all entire, it being generally believed that their strength is increased thereby, and the maximum of strength and the minimun of size combined is the fundamental requirement of coal mines so far as horseflesh is concerned.

In consequence of the circumscribed accommodation mares are never taken down the pits, as there would be danger in working them alongside of stallions; but there is no reason why mares should not be worked by themselves in small detached pits, or even in remote sections of the same pits.

There is a prevalent idea amongst people who are unacquainted with the work that pit ponies are badly used, but this is quite a mistake, for managers of collieries, as a rule, look closely to the management of the ponies. They are well fed, and look as sleek and fit as a stud of hunters. The notion that ponies go blind in the pits is ridiculous, as they retain their eyesight indefinitely, unless injured by accidents, to which they are, of course, from the dark nature of their environment, particularly liable. As a rule, they are only taken to the surface in the event of strikes, disease, or death, and pit ponies live as long, on the average, as horses on the surface. From the uniform temperature of pits ponies suffer very little from colds and similar ailments.

Shetland ponies are also used for the conveyance of children, whether in harness, panniers, or saddle, and for this work they are exceedingly well fitted, in consequence of their surefootedness, good temper, and docility. Naturally, the better sorts are selected for this work, and long prices are often given for suitable ponies.

FEEDING AND MANAGEMENT.

Ponies are fed in the pits on chopped hay to prevent waste. Before chopping was introduced, great quantities of hay were spoilt, but nothing of that kind occurs now. In addition to chopped hay, practically *ad lib.*, a good feed consists of sixty per cent. of crushed oats, twenty per cent. of maize, and twenty per cent. of beans or peas, whichever of the two latter are the better current value. The quantities, of course, depend on the size of the ponies and the nature of their work. They are given water at least three times a day, care being taken to supply it fresh and pure. A still better system is to have a water-tank in front of each pony, with a suitable plug for flushing. During winter they are allowed a few carrots or swedes, and for eight or ten weeks in summer they are given cut grass instead of hay, which has an excellent effect on the health of the ponies. In some pits it is customary to mix the corn along with the hay, but, from practical observation, this method cannot be recommended. Much better results will be obtained by feeding the chopped hay and corn separately. Different ponies have different appetites, and intelligent attendants soon discover the peculiarities of each, and treat them accordingly, and the collective result is decidedly in favour of a separate system of feeding. In the opinion of certain colliery experts, the above-named system of feeding is recommended, though it is not denied that each

colliery manager has his own particular method, which he no doubt considers best. The ponies are regularly groomed, and their shoes are kept in good order which is very necessary for the preservation of their feet.

PIT STABLES.

Pit stables are constructed on many different systems, much necessarily depending on the geological formation of mines. The following method, however, is one which, when thoroughly understood, can scarcely fail to commend itself to mining engineers generally.

The stables are kept scrupulously clean, being well swept out morning and night. They have swing bars instead of fixed divisions between stalls, and a flooring of cement. Over the floor of each stall there is a pitch-pine board, with about an inch of space between the deals, on which the ponies lie. These boards fold up on hinges to allow the floor to be thoroughly cleaned beneath. The urine passes through the interstices in the boards, and is carried away by a channel in the cement floor. When the ponies are at work, these folding boards are left up, so that all beneath is thoroughly dry when they return to stable. The pitch-pine boards enhance the cleanliness and sanitation of the stables, and the feet of the ponies are kept in a much sounder condition, as they are always standing dry. With moss litter or sawdust, running thrushes and cracked heels

are a constant source of trouble. Thus, pitch-pine boarding is probably the greatest improvement which has been introduced into pit stables during recent years. All interior walls are washed periodically with lime, which renders them sweet and clean, in addition to giving them a bright, cheerful appearance. Stables are generally lighted by electricity, which is both safe and convenient. The swing bars dispense with corners, and the floor, in consequence, is more easily brushed and kept clean. The water-tanks are generally within easy reach of the stables, and it is preferable to have the water brought in pipes from the surface, rather than use that which gathers in the mine, as the former is generally purer and fresher.

OTHER BREEDS OF PONIES.

Welsh and Iceland ponies are also used in mines where the seams are high enough to admit them, but experience proves that these ponies do not possess the relative strength and stamina of the hardy Shetlanders, nor are they so easily trained to the peculiarities of the work. They are generally more nervous and take a much longer time to become tractable, and a good proportion of them frequently develop into unsteady workers, which, in the limited space of mines, is both awkward and dangerous. With Shetlanders, this form of vice very seldom appears. All pit ponies should wear strong leather skull-caps, and when they bump their heads against the inequal-

ities in the roofs of pits, they are less likely to frighten and injure themselves. Nothing tends to frighten young ponies more than this, and it is necessary to exercise great caution in dangerous places. Ponies are taken down pits by means of cages, and the old system of lowering them in nets is discontinued in consequence of its inconvenience and the number of accidents which generally occurred on such occasions.

CHAPTER V.

HALTERING AND LEADING.

As we have different breakers, so have we different systems of breaking. There are few systems that do not possess some good points, although, unfortunately, they also possess many bad ones, and, when taken together, they have little to recommend them, so far as inexperienced horsemen are concerned. Indeed, in relying absolutely upon them as guides, many valuable colts have been irrevocably ruined. Horse-breaking, like all other sciences, is capable of improvement, and, hitherto, force and cruelty have played too prominent a part in the handling of colts, instead of considering their peculiarities of temperament, and treating them accordingly.

DIFFERENT SYSTEMS OF BREAKING.

Rarey's system was perhaps the best of its day, yet there were probably more horses spoiled under it than under any system before or since, not so much through any failure in the system itself, but through its application by nervous and unskilled hands.

Then we had later breakers, with more scientific and humane methods, and there is no doubt in the minds of horsemen that their methods reached further and attained better results than Rarey's, although many parts of them are by no means practicable. They profess to be able to "mouth" a colt in about two hours, and this, as every experienced horseman knows, is a physical impossibility. The mouth of a colt cannot be thoroughly well made within a period of two or three weeks. Handling a colt in a covered arena, full of spectators, is a very different thing from handling one in the open. The circumscribed space and the number of people present arrest the colt's attention, and he will almost suffer any liberties to be taken with him in consequence, but, when he comes to be dealt with in the open, all his supposed training in the arena is forgotten.

Another method of breaking, though more recent, is also very impracticable at many of its stages. The theory of kindness is sadly contradicted in many ways by the practice of this method. Throwing down horses, hoppling them with cords, levering the pressure on the mouth through catch-rings, tying the feet to the tail, and a dozen other absurdities come nearer the mark of being cruel than humane. The writer had the opportunity of witnessing some performances recently, and from the beating of drums, firing of pistols, and blowing of steam whistles in a gas-lighted arena amidst hundreds of spectators, the terrified horses had little chance to

hold their own. This din and flourish of instantaneous horse-breaking is all very well in the glittering arena, with the plaudits of spectators who know nothing about horses, but in the eyes of an experienced horseman it appears very differently. There may be some very exceptional cases where hoppling and throwing may be necessary in order to obtain complete control, but, as a rule, such methods are undesirable from most points of view.

The system of horse-breaking which we shall endeavour to elucidate will compare favourably with any, and it reaches much further into the general management of horses. Its effects, too, while a horse remains in good hands, will be permanent, but we cannot guarantee a well-trained horse to do right when he gets into bad hands, because there are, unfortunately, some men who will ruin every horse with which they come in contact, no matter how quiet he may have been originally.

BEST PLACE TO HALTER A COLT.

The best place in which to halter a colt is an enclosed court, not too large, yet large enough to allow a sufficiency of room to work freely. An enclosure about forty feet square is a most suitable place, surrounded by a high wall, so that the colt cannot see over it to distract his attention from the breaker.

KIND OF HALTER.

Numerous writers recommend the use of a leather halter, but, throughout all our experience, we have always used a common rope halter with capital results, as it is more easily put on and adjusted than a leather one. It should be made of ordinary hempen rope, and the artificial loops that require to be made when haltering colts will stand better out than when it is composed of soft webbing.

BEST METHOD OF HALTERING.

We are now supposed to be desirous of haltering a colt that has never previously been haltered nor touched by the hand of man. In ninety cases in every hundred when his court is entered and approached, he will manifest symptoms of wonder and fear. At once he realises man's superiority, and in no case will the colt attempt to fight if the breaker is possessed of an ordinary amount of nerve force, and maintains a kind, yet firm, attitude towards him.

It may be noticed here, however, in passing, that it is always more advantageous to halter colts when they are quite young—mere foals—as it is easier, simpler, and safer of accomplishment. They should be trained to lead quietly while sucking their dams. This is easily managed by following the dam with the foal in a halter, with a good length of cord attached, and, in its struggles, care should be taken to let it feel the power of being held gradually. The

foal will naturally incline to pull forward in rear of its dam, and so the assistance of the mare in this way is invaluable. Foals should be tied up in the ordinary way in stalls for an hour each day, until they feel their own strength, which, at such an immature age, is comparatively little, consequently they are more easily overcome, and yield to their altered circumstances with greater susceptibility than colts of three or four years of age. Thus the system commends itself to all who are intimately acquainted with the nature and habits of horses.

But, to illustrate our method of haltering:—The breaker should take the halter in the left hand, open wide that part which goes underneath the jaw, and throw the loose end over his shoulder. He should approach the colt gently, and, almost in all cases, the colt will start and rush to the extreme end of the enclosure. He can, however, only beat the breaker in one particular, and that is his natural brute strength. It is all that instinct has given him to rely on—all he has ever practised. He has no power to reason with himself how he can best elude the halter, and ninety per cent. of colts will have recourse to precisely the same behaviour in a given set of circumstances, although it may differ somewhat in degree, that is to say, that nearly every colt, in haltering, will behave pretty much alike. The first thing to do is to win his confidence. The breaker should convey to him, so to speak, the idea that he is not going to be hurt. He should approach

gently opposite his near shoulder, and, if he moves, he must stop until he is perfectly quiet. After waiting a few seconds, the breaker must advance carefully as before, and, in the course of a few minutes, the colt will allow his nose to be touched gently, but, on smelling the hand, he will generally start away.

He must never be approached from his other extremity, as we are not sensible that any virtue lies in his tail, although a good deal of power and convincing force lie in his heels, in the shape of removing obstacles that he is not quite sure about; therefore the breaker must keep as far from his heels as possible, for in this case, like many others, "discretion is the better part of valour."

In the majority of cases, at the first contact of the hand, the colt will start and rush wildly away, and, so far as haltering is concerned, this may be considered as the supreme moment on which the balance of the breaker's mastery over him rests. If the breaker jumps aside, attempts to follow him, or appears too much in a hurry, he will miss the opportunity, and the chances are that he will not succeed in getting near the colt again for some considerable time; therefore, when he wheels round, the breaker should stand perfectly still. In no case must he move or recede one single step, or he will lose ground which has all to be recovered again in some manner or other. The breaker should keep his eyes firmly fixed on the colt, never lifting them for a moment. The colt will neither kick nor bite so

long as he does not hurt him ; and when he is again stationary, the breaker must approach him as before, pat him gently on the neck, and, although timid, he will not, as a rule, rush away a second time. The breaker should continue fondling him quietly for a few minutes, then slip the halter quietly yet swiftly over his head, from his poll downwards, letting the loose part that goes below the jaw pass

Fig. 1.—Haltering.

over his nose until it reaches its proper position (Fig. 1), then draw the loose end of the halter gently until the knot comes up to the loop. The cord should be attached below the jaw, and he is thus securely haltered. The breaker should not jerk or pull too much on the halter at first, but should allow the colt to move freely about until he realises what the halter means. Some colts will naturally struggle

a little at first, but they are the exception rather than the rule.

It will readily be observed that the rope halter is more easily put on than the leather one, as it is accomplished exactly in the opposite direction. The slipping of it over his poll has a tendency to steady him, whereas, in pushing a leather halter over his head in an upward direction, the colt will invariably throw up his head and run back; thus, in haltering, the ordinary rope halter is a distinct advantage over the leather one.

HOW TO LEAD A COLT IN THE OPEN.

In order to teach the colt to lead, a rein about twelve feet long should be attached to the end of the halter, and if he struggles to break away he will be more easily managed. He must never be allowed

FIG. 2.—LEADING.

to get his hind quarters round the rein, or it will be impossible to hold him. The breaker must bend the colt's neck in quick succession from one side to the other, turning him round in all directions, then get opposite his near shoulder and urge him forward with kind, encouraging words, with a slight indication of the whip at his rear, and in very few minutes he will become quite tractable, and yield willingly according to instructions. (Fig. 2.)

HOW TO LEAD HIM INTO A STABLE.

In taking the colt into a stable, great caution must be exercised, for, if anything occurs to frighten him about the door, he will remember it for a long time. A door with a low lintel is a frequent cause of this danger, because, if the colt throws up his head on entering, he is sure to come in violent contact with the lintel, and he will scarcely go in at any door afterwards. Colts that have been frightened in this manner, often rush into the stable with a great bound, which is highly dangerous both to themselves and their attendants. If the colt refuses to enter the door of a stable, the breaker should never attempt to pull him, as it will only exhaust his own strength and give the colt the victory. He must never be encountered on the power of his strength, but given a few smart turns, first to the right, then to the left, and faced up each time with his head directly away from the door. The breaker must repeat this three or four times, and, while

wheeling him, face him smartly round to the door, reach well back with the whip and give him a slight cut across the hocks, at the same time giving him a kind word of assurance, and he will invariably march straight in without further difficulty.

HOW TO TIE HIM UP IN A STALL.

In the opinion of the writer, the best and safest method of tying the colt in a stall is to secure him to a strong ring directly in the centre of the manger, by passing the halter through it and attaching it to the "clog," or weight. (Fig. 3.)

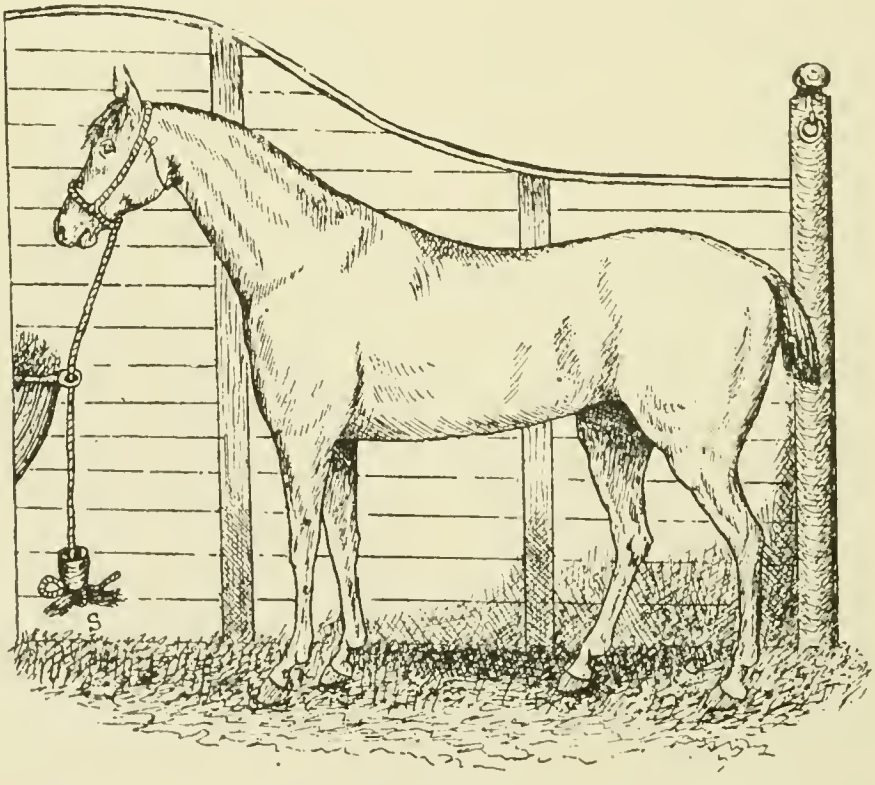


FIG. 3.—COLT TIED IN STALL. S. STRAW IN KNOT.

A rip of straw should be inserted before the halter is drawn tight, so that if the colt pulls on it at first, the halter will be quite easily unfastened by cutting out the straw. The colt should be gently forced back, so that he may be induced to try his weight and strength on the halter. This can be done by swinging something gently in front of him, and when he finds himself securely held, he will generally desist struggling and stand perfectly quiet. When he is attached to the centre of the manger, he cannot turn round in the stall, nor get entangled, as occasionally happens when the ring is more at one side than another. Some breakers recommend rings in both corners of the stalls, but, when attached in this manner, restless colts are very apt to get their forelegs entangled amongst the ropes.

With unusually nervous colts, a safer plan is to suspend a strong, thick rope from pillar to pillar so as to catch their quarters, but this expedient should only be resorted to in extreme cases, because it may very easily cause ticklish animals to kick out and injure themselves, and it may even tend to make them develop into pronounced stable-kickers.

THE POWER OF KINDNESS.

Thus, through kindness, the breaker has accomplished in about an hour, single-handed, what it would have taken three or four men double the time to accomplish under the old familiar system which is so common at farm-steadings, and which need

not here be described in detail. The fun to juveniles on such occasions is immense when the struggling and terrified colt is hanged down with a cart rope by sheer force, and the danger to the colt and the men who are handling him is in the same proportion.

But some readers may imagine that to accomplish all this successfully and live, the nerve of a Rarey or the science of a Galvayne is necessary. There is some force in such imaginings, but what man knows the power of his own nerve and will if he never tries? Our advice then, is to try, for more knowledge will be gained in the handling of one colt than can be acquired by the reading of ten books. Practice is always better than theory, therefore, we repeat again—try.

CHAPTER VI.

BRIDLING AND BITTING.

The old and familiar, and—it may also be added—dangerous method of placing the bridle on the colt and putting the bit in his mouth is accomplished (or, rather, it is not accomplished) by turning the back to the colt's chest, taking the bit in both hands at the side of the bridle, and pushing it roughly into his mouth. It generally happens, however, that the colt rears, spars out with his fore feet, and not infrequently plants them between the shoulders of his tormentor, which is the reverse of pleasant, to say nothing of the danger attending it. At this juncture, the whip is brought into requisition—or, if a net stake is lying handy, it serves the same purpose—and an all-round piece of flogging ensues, which exhausts the man—but that is a small matter—and leaves the half-mad colt trembling in every limb with terror.

The same process is tried again and again with practically the same result, the only appreciable difference being that on each successive trial the colt becomes more terrified. Finally, the idea of bitting

him is abandoned until a sufficient number of men can be gathered together, when the colt is held down by sheer brute strength, and the bit pushed into his mouth not infrequently with the end of a stick. Thus, the poor colt receives his first lesson of cruelty, which he does not readily forget.

He is then taken into a court or field, generally the latter, and subjected to the most barbarous and unnecessary abuse imaginable. He is flogged and galloped round, one man taking his turn in following him with the whip when another becomes exhausted, unmindful of the poor animal which must run for them all. This barbarous treatment is continued till the white foam stands in great balls over his quivering chest, and his started veins and heaving flanks denote only too well the intense agony that the poor brute is suffering. In many cases of similar treatment we have seen a raw, grass-fed colt fall down through sheer exhaustion.

THE EFFECTS OF SUCH TREATMENT.

The colt is now considered by his tormentors to be "conquered," but no one who understands the proud, sensitive nature of a horse will believe it. Conquered by such treatment he can never be! In fact, the colt is infinitely more dangerous now than if he had never been touched, because everything he has been made to do has been done through force and fear. The whole nervous system of the colt has been unstrung through pain and terror, and

he has necessarily acquired the idea that the action of man towards him is one of continuous cruelty. He is educated accordingly and will naturally embrace every opportunity which presents itself to rid himself of man's society. A colt thus handled can never be depended on. He will remember his tormentor as long as he lives, and will never miss an opportunity to kick, bite, or bolt when occasion arises —aye, and perhaps when it does not arise.

DANGERS OF TIGHT SIDE REINS.

The colt is then turned into a court, the side reins put upon him, and, with an amount of ignorance which is lamentable, they are drawn as tightly as his tormentor's ingenuity can invent.

(A certain writer urges that side reins should never be put upon a colt, but we disagree with him and consider their action comparatively painless when adjusted by skilled and humane hands.)

The colt's head, in such circumstances, is so closely drawn into his breast that he cannot turn it an inch to right or left from the centre, and his mouth, in consequence, becomes lacerated and hardened. A great number of breakers are under the impression that the oftener the mouth is broken it is the more sensitive, but exactly the opposite is the case. If a light, pleasant mouth is desired, *never once permit the skin to be broken.* Naturally, the colt tries in every conceivable manner to relieve the painful pressure of the bit upon his jaw, and very frequently

he rears and throws himself right back over. Thus he acquires a habit that it is difficult to get him to unlearn, and of all the bad habits a colt can acquire this is by far the most dangerous. But this is not all, because, by the hardening of his mouth the bit loses its intended effect, and he cannot be held if he chooses to bolt—thus, in bridling and bitting alone, three of the worst vices are imported into his character—rearing, bolting, and continuous watchfulness to take every advantage of his surrounding circumstances.

NEW SYSTEM OF BRIDLING AND BITTING.

The proper and humane method shall now be described, with far different results.

In bridling a colt, he should be turned round in the stall with his head outwards towards the door, just as the famous horse show dodge went—

> "Pay a penny and you will see
> A horse's head where his tail should be."

The breaker should undo the near bit strap, slip the bridle gently over his head, stand exactly opposite his near shoulder, and fondle him gently with the hand and encourage him by kind words. This is the only position close to a horse of absolute safety. No colt can strike the breaker either from before or behind, no matter how hard he tries, nor can he run away if his neck is bent and the position maintained. The breaker must fasten all the bridle straps

properly, then slip the two first fingers of the right hand into the colt's mouth at the side behind his front teeth. At three years of age he has no tushes and cannot possibly bite the fingers in this position. He must place the fingers over the colt's tongue, then insert the thumb and press it gently on the nerve centres of his lower jaw. In nearly all cases he will yield at once, and will suffer his mouth to be opened quite wide (Fig. 4). The breaker should take the bit in the left hand, still keeping the right fingers in the colt's mouth, slip it gently through his teeth into his mouth, attach it to the side ring, then withdraw the fingers, and the whole matter is accomplished without a struggle.

HOW TO PUT ON THE OTHER TACKLE.

As soon as the colt is bridled and bitted, the surcingle should be strapped lightly round him. The breaker should avoid drawing suddenly at first, or the pressure may startle the colt and cause him to kick and throw himself down. The next thing is to place the crupper beneath his tail. This is accomplished by standing well forward at the near side of the colt and pushing his tail quietly through. The breaker should be sure that all the loose hair is through the loop. Nothing will make a colt kick sooner than by leaving some of the hair at the root of the tail outside the crupper, for when the pressure comes upon it it will nip his dock and induce him to kick and throw himself about in all directions.

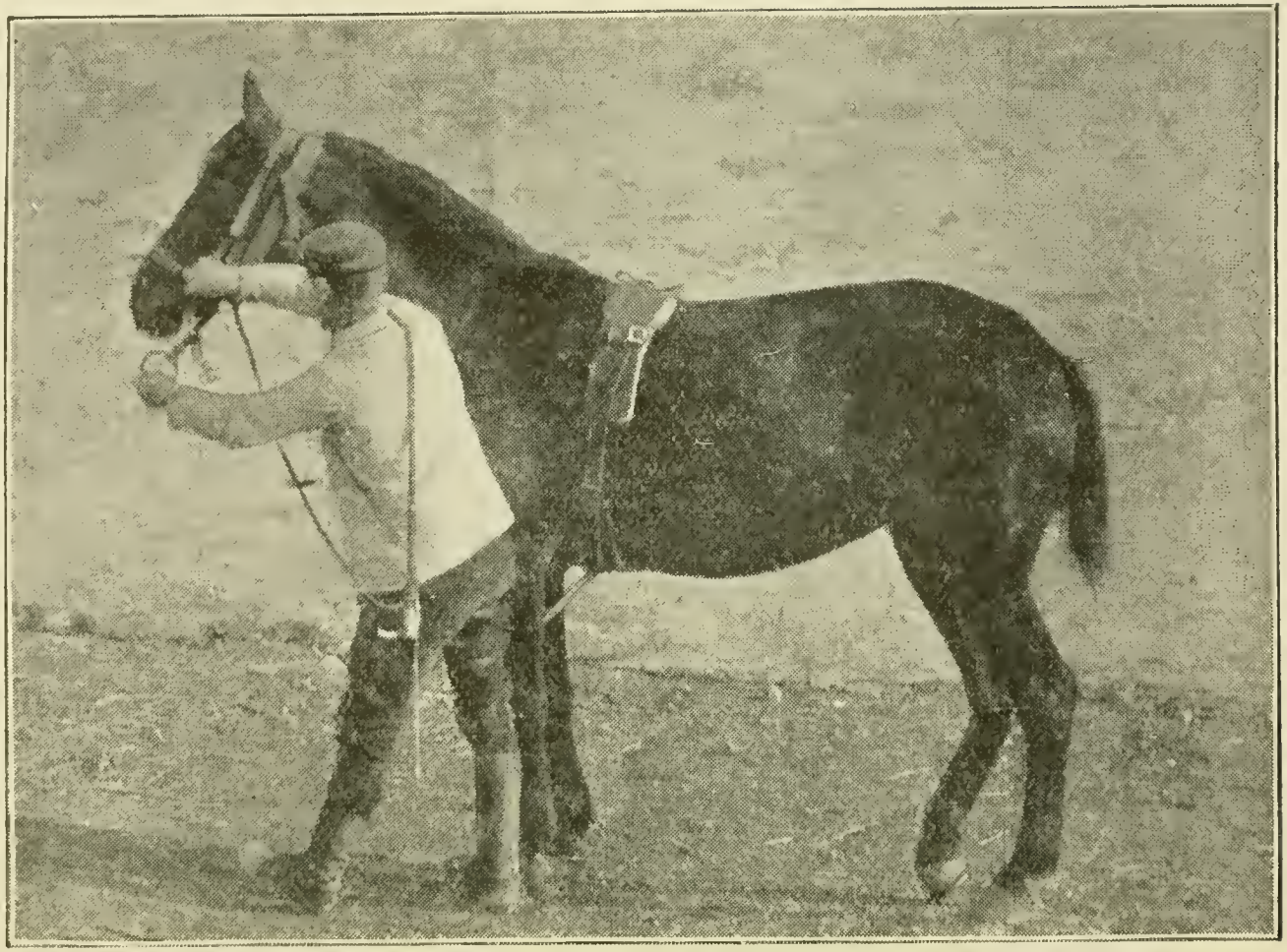


FIG. 4.—PUTTING BIT IN MOUTH.

The crupper should be fixed to the surcingle, taking care not to draw it too tightly. After this, the breaker should take the end of the halter, which should always be left on the head of the colt beneath the bridle and bring it through between his fore-legs and tie it, not too tightly, to the surcingle. After a little practice in this manner, the side reins should be placed upon him very loosely, the near rein being fixed to the off ring of the surcingle, and *vice versâ*.

HOW TO "MOUTH" THE COLT.

It is a good plan to turn the colt into a large, open court, where he cannot get fast in any way, and allow him to roam about of his own accord. In this way he will soon begin to champ and work the bit, and the more he works it his mouth will be the more evenly made. The bit should be slightly bent with three small keys suspended from the centre. The bend in the bit prevents the colt making his mouth unequal, as it is impossible for him to pull entirely on one side of it, while the loose action of the keys induces him to work the

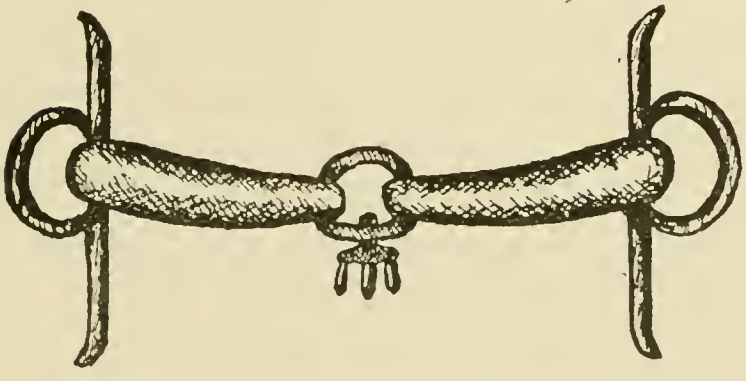


FIG. 5.—BEST KIND OF BREAKING BIT.

bit more freely. The keys should not be too long or they will come between his front teeth, which may give him a bad habit of tossing up his head in future. (Fig. 5.)

Some colts are inclined to sulk on the bit at first, but in time they well generally work it quite freely. The breaking tackle should not remain upon the colt more that a couple of hours at first, and the time should gradually be increased as the breaking proceeds.

The colt should be handled twice a day, forenoon and afternoon, if possible. In removing the breaking gear from the colt, he should be turned in the stall as previously explained, and everything taken off in the reverse order from which they were put on, always leaving the rope halter upon his head. The breaker should exercise caution and should not hurry in any way, for the colt may be nervous and he may learn something in a minute which he will remember for a week. This treatment should be continued for a fortnight at least before any attempt is made to mount the colt. His mouth is not reliable before that period, and getting upon his back when his mouth is imperfectly made is both foolish and dangerous. It is all humbug for certain trainers to allege that the colt can be "mouthed" in a few hours. We have handled hundreds of colts of all degrees of breeding and temperament, and while some are much more susceptible than others, it would be unwise in the extreme to trust them in

the matter of "mouthing" sooner than the stipulated period. Many men take liberties with colts, and many bad habits are acquired by them in consequence. Whether a colt is docile or not he should always be treated *as a colt.* The breaker should always be prepared for some display of bad temper. If it does not occur, so much the better; if it does, he will be ready to grapple with and conquer it. It is easier for a colt to learn a good habit than to unlearn a bad one. No time is lost when patience is exercised, because every minute spent in the training of the colt will be rewarded a hundredfold in the perfect behaviour of the horse.

HOW TO ADJUST THE SIDE REINS.

In putting the side reins upon the colt they should be attached so that he can turn his head one foot to right and left from the centre, and he will thus have six inches to the front by which he can relieve his mouth from the hard and continuous pressure of the bit. (Fig. 6.) The side reins should be very gradually tightened from day to day until the maximum tightness is attained, which will depend on the breeding of the colt and the work he is intended for. The "mouthing" of the different kinds of horses will be explained under their own particular heads in subsequent chapters.

The breaker should move the colt gently about both in the court and in the open, and teach him in a quiet manner to obey the whip. He should

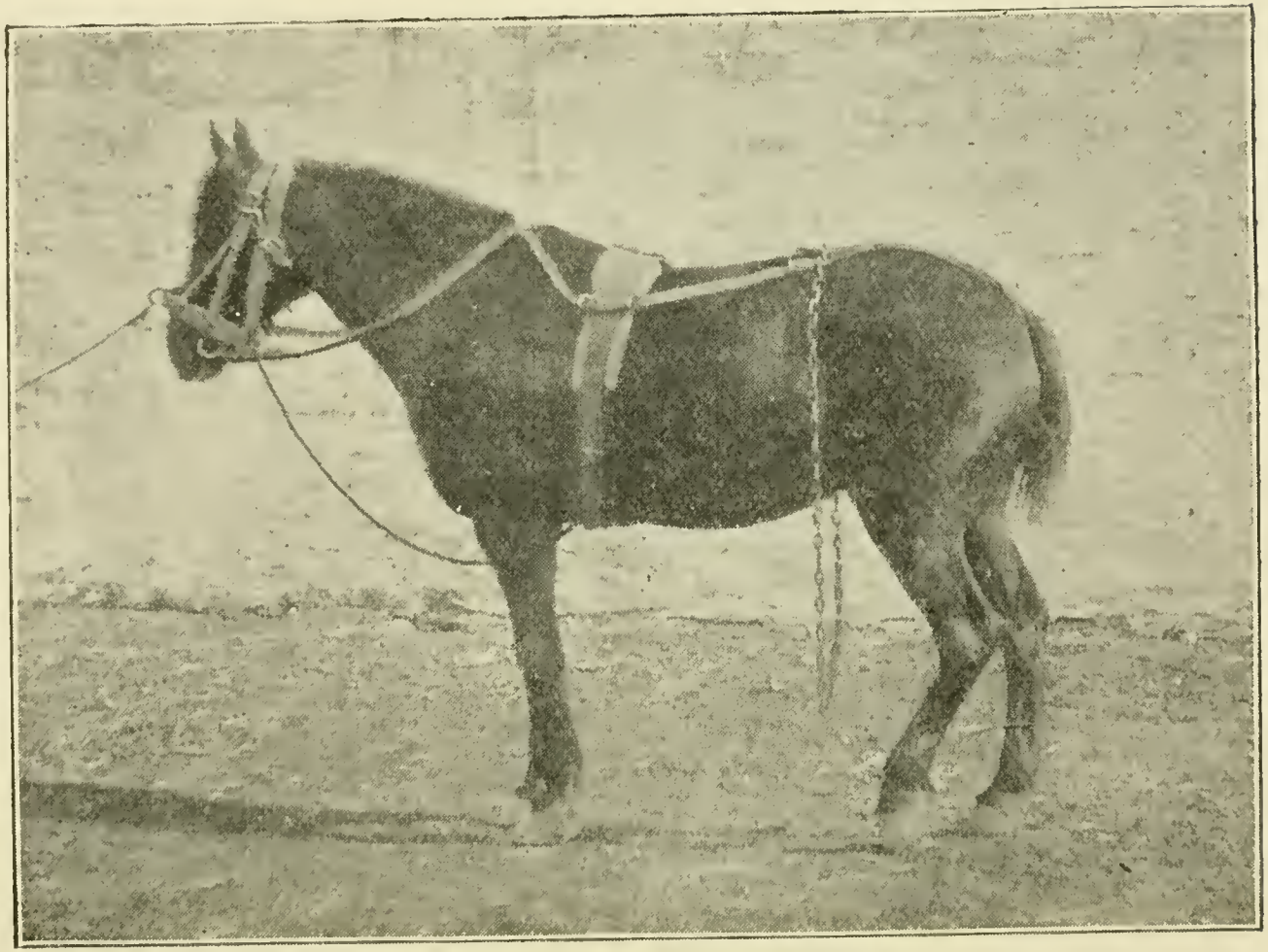


FIG. 6.—SIDE REINS ADJUSTED.

never raise the whip above the height of the thigh, and, if the colt does not precisely do what is wanted, he should try something else without teasing him too much at a time. The breaker must retain the colt's confidence by patting him, and he will soon submit to be freely handled in the most trustful manner. Mistakes should be corrected at the time they occur, with firmness, but never with violent abuse.

KINDNESS TRIUMPHS OVER CRUELTY.

By this method of bridling and bitting, the colt has no cause to rear; the bit will not lacerate and harden his mouth, and he will not try to take advantage or get rid of his breaker. By gentleness he has won his confidence, and when he enters his box—after the absence of an hour or two—he will approach trustingly and meet him. Indeed, there is scarcely a single instance recorded when the colt would not walk close up at once in the most confident manner; whereas, under the old and coarse method, as soon as his box is entered by his breaker he will rush to the opposite end and persistently keep his heels towards him. Thus far, kindness triumphs over cruelty, and brute instinct yields before the power of intelligent reason.

CHAPTER VII.

SADDLING AND MOUNTING.

In saddling the colt he should be turned round in the stall and fastened to each pillar on either side, allowing him sufficient head to move backward and forward freely. The breaker should take the saddle and hold it forward to the colt's head so that he can see and smell it, soothe him gently by kind words, and caress him by patting him softly behind the ears. He should move quietly up to his near side, push the stirrups well up through the leathers, and fold the girths across the top of the saddle. After making much of the colt for a few minutes, the breaker should slip the saddle gently over him, place it squarely upon his back, slip the girths quietly from the top of the saddle (Fig. 7), and in girthing him he must be careful not to draw too tightly at first. Nothing frightens a colt more than straining him round the middle suddenly. The breaker must never hurry, nor do anything clumsily, but move about the colt with ease and confidence, and he will soon grow familiar with the appearance and feeling of the saddle. It should be frequently put on and taken off his back, first from

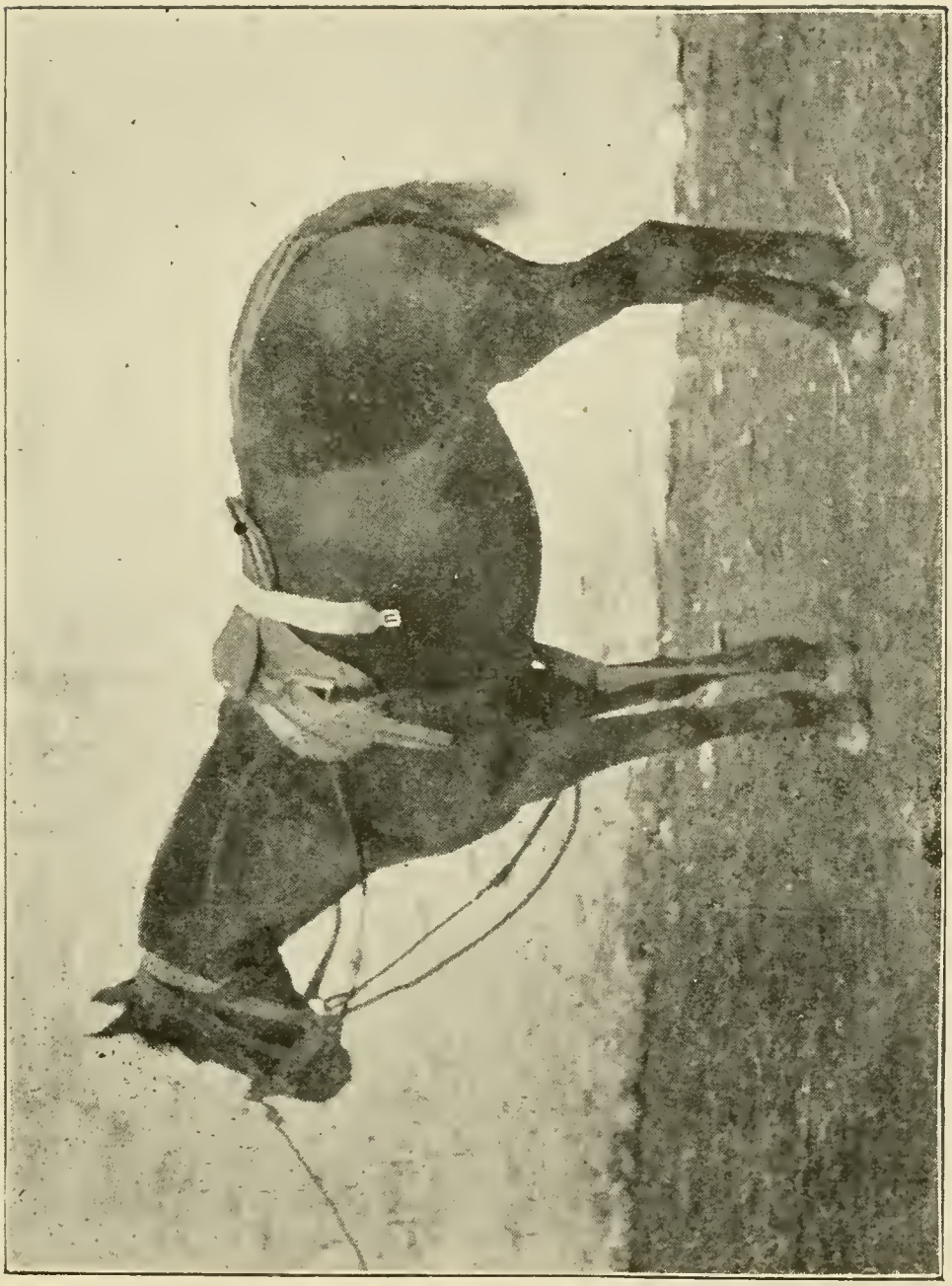


Fig. 7.—Saddling.

one side and then from the other; and when he becomes thoroughly accustomed to this, the flaps of the saddle should be beaten very gently at first to familiarise him with noise like the swinging of straps and rattling of irons.

HOW TO PREPARE THE COLT FOR MOUNTING.

After training the colt with the feeling of the saddle for three or four consecutive days, he should receive lessons in turning to the bit. This is best accomplished by walking close to his side—the near side—and reaching the right hand well over the withers to use the off-rein, while the left is worked by the other hand, making him move backward and forward and turn in all directions. The colt should be led in the open a few days by a long rein attached to the front cavesson ring. He should be taken along public highways so that he may become familiar with objects on the road. Many colts are frightened to pass swiftly driven vehicles and "scorching" cyclists. From the number of bicycles now being ridden over the public roads, together with the frequent appearance of a snorting motor-car, the passing of these objects quietly by horses is an important and essential point in their early training.

THE USE OF CHAINS AND MOUTH-BAGS.

In addition to the ordinary breaking harness, it is a capital plan to fix a chain to the crupper just above the colt's quarters. The chain should be about eight

feet long so that it will hang about a foot beneath the flanks of the colt on either side of him. It will dangle and play about his legs and flanks by the motion of his body, and will have a tendency to remove any ticklishness that may be about him. A pair of common farm mouth-bags may be tied together, fixed in the centre of the saddle, and suspended as far as the feet of the rider will reach. They should be filled with some heavy material—corn or turnips will do—and their weight pressing against the sides of the colt has an excellent effect in preparing him for the pressure of the rider's legs.

HOW TO DRIVE THE COLT WITH REINS.

The colt should frequently be driven round in a circle, first to the right, then to the left, and never too long at a time. In this way it is easy to give him plenty of exercise before he can be ridden. He should be sent round at a trot and a canter, sweating him a little, but not tiring him. In running him to the left the right hand rein can be used as a whip if necessary, and *vice versâ* in running to the right. The breaker should always stop the colt when the direction of his course is reversed and induce him to walk close up, when he should be encouraged by fondling and kind assuring words. He will learn this almost sooner than anything else if he is kindly treated. The reason for stopping him when his course is reversed is to prevent him running one action into another and confusing his paces. Walking, trotting, cantering,

and galloping are all distinct paces, and should be done separately, but this matter will be fully considered in a subsequent chapter.

As already explained, the halter should always be left on the head of the colt below the bridle. The halter shank should pass between the fore-legs, and be securely fixed to the saddle girths, and when the colt throws up his head the pressure comes upon his nose which does not check him so severely as when the strap is attached to the rings of the bit. The driving reins should be ten yards long, and should pass from the colt's mouth along through the stirrups. The stirrups should always be fixed to the girths to prevent them being displaced when the reins are drawn upon. In this manner the driver can lever the reins round the hind-quarters of the colt, and wheel him about in all directions with the greatest ease.

MOUNTING IN THE STALL.

When the colt has been driven about the fields and roads for a few days he should be mounted. While we recommend mounting proper in the open, it is well to accustom the colt to the weight and appearance of the rider in the stall. The colt should be turned in the stall and loosely fixed to the pillar rings on either side. The breaker must work quietly about him for some time, catching the saddle by the right side, and lean the weight of the body upon it. He should insert the left foot in the stirrup, taking it

out and in frequently so as to get the colt to understand what the noise means. When he has learned this in the stall he will remember it in the open, and will not mind the jingling of the boot in the stirrup afterwards. When he is quiet under this treatment, the breaker must get his foot in the stirrup, raise the body slowly and gradually up, and lean across the back of the colt without putting his leg across him. He may continue doing this for half-an-hour from both sides of the colt, and then slip his right leg quietly over him. He should settle the body well down in the saddle, and move the arms and legs continuously about him. He should move them cautiously at first, and gradually increase the motion according to the behaviour of the colt. He should mount and dismount often on both sides of him, and never appear to be in a hurry by wishing to accomplish in ten minutes what it will take an hour and a-half to execute properly. This may be continued for a few days, and when the colt is fairly accustomed to the weight and appearance of the rider he should be mounted in the open.

MOUNTING IN THE OPEN.

Some breakers recommend mounting the colt in a court or any large enclosure, but it is always attended with more or less danger both to the colt and the rider owing to the close proximity of the walls of the building ; therefore mounting in the open is urgently recommended for general safety.

A good system is to take the colt into the centre of a large field—stubble if possible—and in addition to the reins a coil of cord should be attached to his head in front, so that if any mishap occur he can be prevented from running away by keeping hold of the cord. The cord should be loosely rolled up, and suspended from the left arm of the rider.

He should get the colt by gently fondling him to stand perfectly steady, and this will best be effected by giving him half-an-hour's coursing in the long rein previously. As soon as the colt is quiet, the breaker should take the reins along with a full handful of the colt's mane in the left hand, and place the right hand on the off side of the saddle with the whip lying horizontally under the palm, insert the left foot in the stirrup, raise the body gradually up, and whenever the balance is reached, slip the leg quietly yet swiftly across him, and insert the foot in the stirrup. He should settle the body well down in the saddle, keep a cool head, and always be ready for any emergency (Fig. 8).

HOW TO RIDE HIM.

In putting the colt into motion the breaker should keep his hands well down on the front of the saddle, and urge him gently with the heels. It is always better to ride him without spurs at first. If the colt does not appear inclined to start, the breaker should draw gently on the left rein, at the same time closing the left leg against him, and coax him by kind, assuring words.

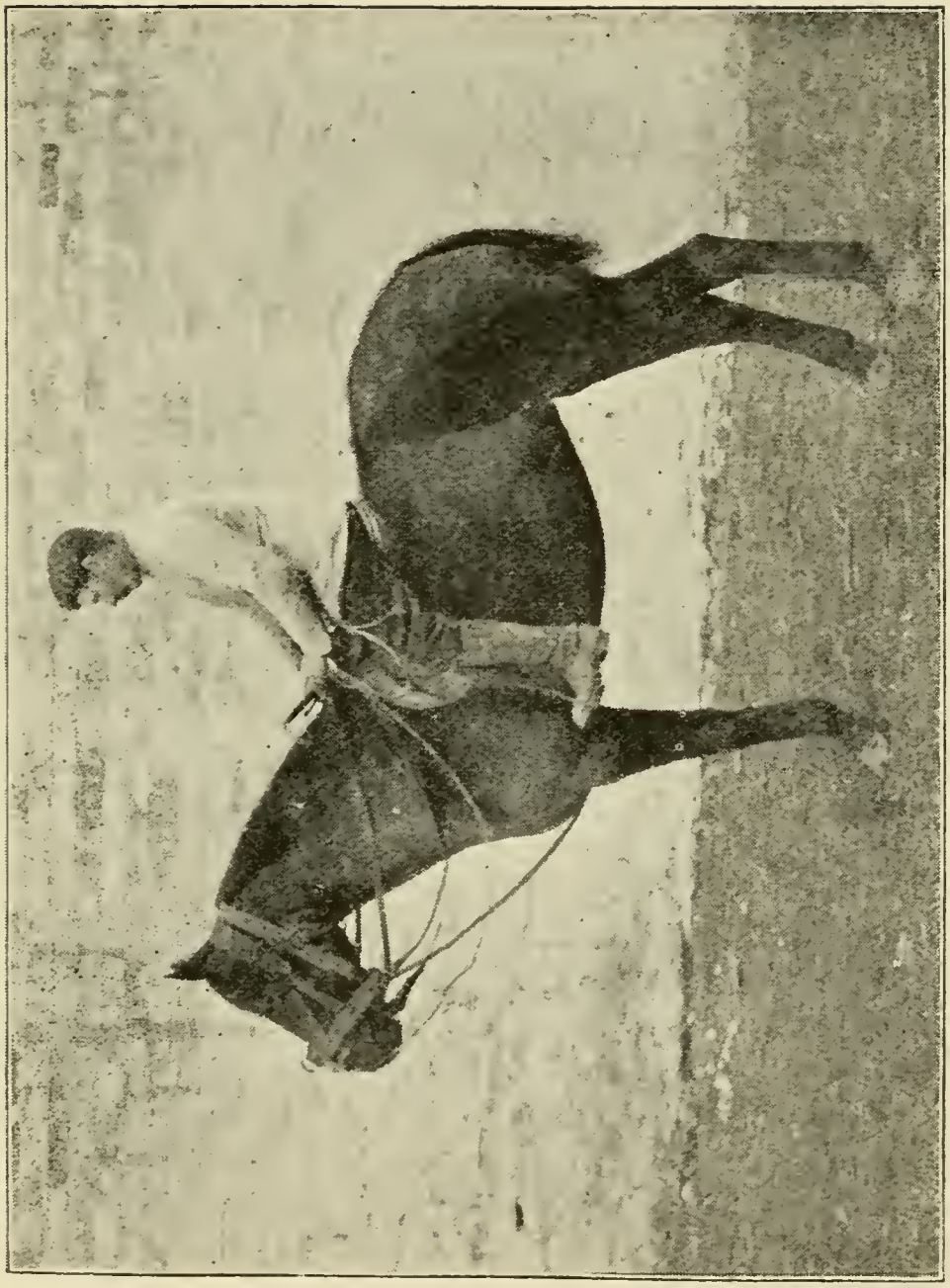


Fig. 8.—How to Ride.

When he moves forward, the breaker should not be over-particular in forcing him to go in any special direction, but should keep him circling widely at a walk. The horse should not be trotted nor galloped until he is quite familiar with all the rider's movements in the saddle.

If the colt should plunge and rear, the breaker must bend well forward on his neck, slacken the reins, seize him by the mane, and, as soon as he descends from his evolution, push him forward and keep him in motion.

If he should buck and kick, he should take him well in hand, and stick the knees close into the saddle flaps. He should warn him in stern accents to desist, at the same time giving him an occasional hard pull with the rein, and, if the rider maintains his seat, the colt will soon cease all attempts to dislodge him, and move along in a quiet and tractable manner.

HOW TO MAKE THE COLT STOP WHEN HIS RIDER FALLS OFF.

The simplest method of teaching a colt to stop when his rider falls off, is to put him into an easy-going canter. The breaker should keep the colt going round in a large circle to the left for some time, then draw the feet from the irons, quit the reins, and slip off at his near side, taking care in alighting to avoid being kicked. He must retain the coil of cord in his hand, which should not be less than

ten or twelve yards in length, and, whenever the colt gets to the end of the cord, the sudden jerk turns him smartly round towards the breaker. The breaker should stand steady and pull the colt towards him, and, whenever he comes up, make much of him by fondling him about the ears and neck, speaking kindly to him at the same time. The cord should always be attached to the front cavesson ring and never to the bit, or the sudden jerk will lacerate the mouth of the colt, and possibly pull him back over. The cord should never be rolled round the hand, but held firmly in the loose coil, because, were the trainer to fail in turning the colt, he might be dragged by the hand and severely injured. In slipping from the colt when he is going in a circle, the danger, however, is materially reduced. In ten or twelve lessons of this kind the colt will wait for his rider every time, and only those who have been accustomed to hounds can appreciate this easily-acquired and excellent qualification in a horse. Few riders can follow hounds without getting "spills," and, when hunters are not trained to stop, great inconvenience is entailed in securing them, therefore, no hunter's tuition is complete when this branch of his training has been neglected.

HOW TO PREPARE THE COLT FOR BEING SHOD.

The colt should not be taken too often upon the road without putting the shoes on his feet, or he will wear his hoofs down to such an extent that

little will be left to fix the nails through. All through his breaking the feet of the colt should be regularly lifted every day and beaten with a stick or hammer in order to accustom him to the idea of being shod. Caution must be exercised in raising his feet at first. The breaker should always stand well forward when lifting the hind feet, or the colt may "shake hands' in rather an uncultured manner at the "first introduction"! It is a safe plan to pass a strap round the pasterns of his hind legs and draw them gently forward when giving him his first lesson. He will naturally struggle a little at first, but will soon desist when he discovers that no harm is meant. The shoes should be light and flat, and those on the fore feet should be put on slightly short rather than long. Colts are addicted to over-reaching themselves at first and pulling the shoes off, breaking their hoofs, and otherwise injuring their feet and legs. The shoes should also be kept well within the hoofs on the inside of the hind feet, as raw colts are sometimes inclined to brush their pastern joints, especially when their action is wide at the hocks.

CHAPTER VIII.

HOW TO BREAK COLTS TO HARNESS.

In putting a colt into harness great care and caution must be exercised, for if anything goes wrong at first he will remember it for a long time, and will invariably try to take advantage of any similar mishap occurring in future. All the harness should be carefully put upon the colt; he should be allowed to roam about in the court for a few days, and as he will be likely to rub and damage the harness, any old set will serve the purpose. (Fig. 9.)

HOW TO ACCUSTOM THE COLT TO PRESSURE BEFORE AND BEHIND.

The breaker should drive the colt out in harness regularly every day, and frequently on the road, in order to accustom him to the various objects he is likely to meet. The breaker should have two long ropes attached to the hames, so that the weight can be brought to bear on the colt's shoulders by pulling on the ropes in order to gradually accustom him to the pressure of the collar. The breaker should twist the ropes in and about the colt's legs in every conceivable

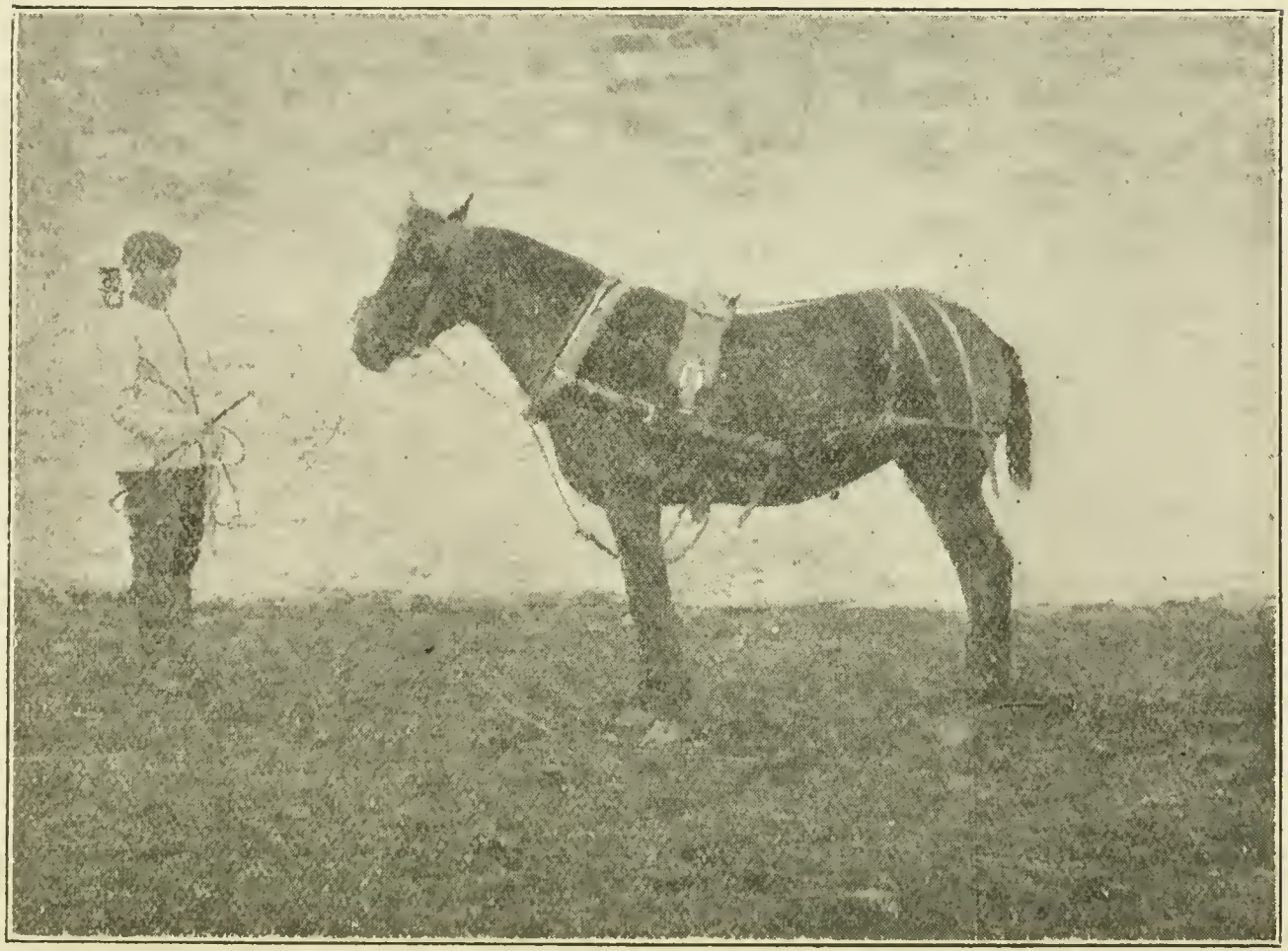


Fig. 9.—Colt Harnessed.

manner, and so educate him to understand any emergency that may arise in future. A chain should also be suspended over his quarters which will jingle about his flanks and accustom him to the touch of the shafts. The passing of the ropes between his hind legs will familiarise him with the pressure of the traces. If a colt were to get his leg over the trace by some accident or other, without being educated in this way, the chances are that he would kick everything to pieces in very few minutes, and his hocks in all probability would be permanently blemished.

The ropes should also be attached to the breechen rings, then passed forward through the hame rings and back to the hands of the breaker. Pulling on the ropes in this manner will teach the colt what pressure from behind means, and in descending hills he will understand what the weight of the trap upon his quarters amounts to and will not mind it.

HOW TO YOKE THE COLT.

After driving the colt three or four days in this way, the breaker should put a strong set of harness upon him ; he should be careful that every strap is in its right place and in proper working order, and also that the collar fits the colt evenly. The halter should remain on the colt's head beneath the bridle, with the end of it through between his forelegs, and tied to the girths pretty loosely. A long cord should also be attached to the head of the colt

by which the assistant can guide him a little at first. The breaker should have the trap standing ready in the centre of a field—a level one if possible—and the assistant ready to hold up the shafts. No time should be lost in getting the colt between the shafts and yoking him. He should first fix on the traces (the reins already being adjusted), and then buckle all the straps as quickly and quietly as possible; but he should not be too much in a hurry as the colt may become excited, which may cause him to move forward before he is securely yoked.

HOW TO FIX THE KICKING STRAPS.

Instead of having only one kicking-strap, the breaker should have two. He should fix one to the near shaft close to the trap, then pass it through the breechen over the colt's croup, and buckle it to the off shaft immediately before the backband ring. He should do precisely the same with the other strap from the opposite side, and he has thus double the strength and efficiency of the ordinary method (Fig. 10).

By the use of double straps scarcely any colt, however hard he tries, can kick sufficiently high either to damage himself or the trap, nor can he kick himself out from beneath them as he often does under the ordinary single-strap system. Both straps catch his quarters simultaneously, and no amount of kicking so long as they remain whole, can possibly dislodge them.

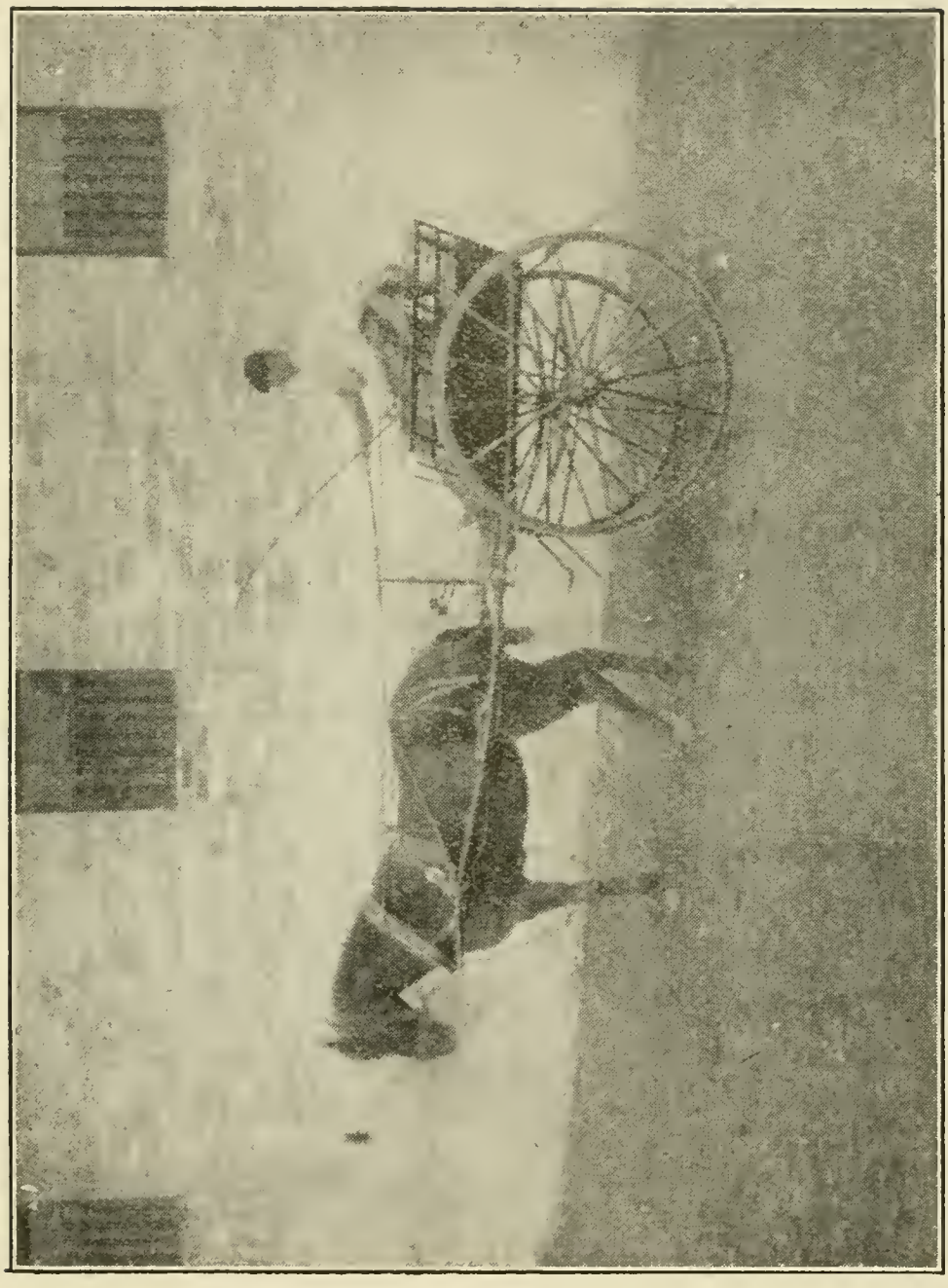


Fig. 10.—Kicking Straps Adjusted.

HOW TO DRIVE THE COLT.

As soon as the colt is securely yoked the breaker should get into the trap, taking the reins in the hand before mounting. A good horseman never fails, firstly, to glance over the harness, and, secondly, to take the reins in his hand before mounting the trap. The assistant should take the colt by the head, using the long cord, while the driver urges him gently to move forward by working the reins with the hands along with kind words of assurance and encouragement, and in the majority of cases he will generally obey. He must keep the colt well in hand by taking a short hold of the reins, with the hands level and well parted, bearing upon them according to the colt's movements. He should keep him circling widely round in all directions, first to the right, then to the left, and must always avoid wheeling him too abruptly at first until he grows familiar with the motion of the trap behind him. On going on to the hard road for the first time a good watch should be maintained over the colt as the sudden and unexpected noise behind may cause him to bolt, and otherwise startle him. Knee-caps should be placed upon the colt for the first few times he is in harness, so that if he should throw himself down his knees will be protected ; indeed, it is a safe plan to ride and drive him on the road for some considerable time with knee-caps until he becomes

accustomed to objects on the way and the work he is required to perform.

If the colt should be unwilling to start at first, he should be turned gently round to the left once or twice with the aid of the assistant, and then tried straight forward, steadying him by working the reins in a firm and encouraging manner. If he should still, however, remain obstinate, the breaker should continue turning him, increasing the velocity as required. This is best managed by the assistant with the cord at the colt's head, as the pressure comes on his nose rather than on the bit. When he has gone round several times, the driver should draw the off rein *while the colt is still wheeling*, at the same time giving him a kind encouraging word, and he will generally bound into the collar like a lion. The colt should not be kept too long in harness at first or he will sicken and tire of the work; half an hour forenoon and afternoon will be sufficient for the first few days, and as he hardens to the work the periods may be increased.

HOW TO UNYOKE THE COLT.

Care and caution are quite as necessary in unyoking as they are in yoking the colt. Perhaps the safest and best method is to face him close up to a wall. The driver should stand at the colt's head and let the assistant undo every strap, leaving the traces till the last, with the exception of the reins which

should never be undone till the colt is in the stable. When everything is clear the driver should hold the colt by the head while the assistant quietly pushes the trap back off him. He should turn him round so that he can see it, at the same time patting him about the head and neck and soothing him with kind words.

It is very important that every strap should be carefully undone, because, in the event of the colt becoming entangled he will bolt forward through fright and may never forget it as long as he lives. Bolting out of harness is a very dangerous habit both to the horse and the attendant, and it is generally acquired during the breaking by carelessness on the part of breakers. Some breakers are so indifferent that when handling an unusually quiet colt they treat him as a seasoned horse until some accident occurs when they get their eyes opened to their over-confidence. All colts should be treated as colts until they are thoroughly familiar with their work, and for the first half-dozen times they are in harness special care should be exercised in unyoking them.

HOW TO PUT THE COLT IN DOUBLE HARNESS.

When a colt is put into double harness he should be yoked on the off side of a steady, ready-working horse that will not bite him. The horse should be strong enough to move the brake forward himself if necessary, and a ready worker is preferable as he

will start quickly at any moment to suit the humour of the colt. The colt should never be placed beside a horse addicted to biting, or he will jump back and perhaps injure himself when the horse attempts to seize him, thus he is taught a bad habit at first which he does not soon forget. The same care and attention should be bestowed upon the colt in putting him in double harness that is exercised in putting him in single harness. Most colts that will go in single harness will go in double; but some that go quietly in double harness will not go in single.

The pace of the old horse on the near side should be regulated to suit the pace of the colt. If driven too fast he will be made to break his steps, which will spoil him for harness, or, indeed, for any other work. A combination of paces—half trot, half gallop—is most offensive to the feeling and eye of a horseman. On the other hand, if the old horse goes too slow, the colt will acquire a disagreeable habit of turning in his head towards the other horse which has the effect of throwing his hind quarters out, consequently he will move along in a broadside, shuffling sort of way which looks very bad.

Plain bridles without "blinders" are preferable at first in order to enable colts to see well about them, and bearing reins should play no more prominent part than that of pure ornamental effect.

HOW TO PROTECT THE SHOULDERS.

The breaker should leave the collar upon the colt for a quarter of an hour after he is unyoked, then remove it and wash the shoulders with a little salt and water. This should be done every day he is yoked until the shoulders become hard and set, which generally occurs in about a month. The water should be lukewarm, and half a handful of salt to a quart of water is sufficient. It is also a good plan to keep the inside of the collar well oiled. The protection of the shoulders is a matter of first-rate importance, because, if allowed to become scalded or broken intense pain is inflicted upon the colt, and he will naturally be shy to throw his weight into the collar on starting in future. As a matter of fact, many colts develop into unsteady workers purely through this cause, which can be distinctly traced to negligence on the part of breakers, therefore it will be to the interest of owners to give this matter their close attention and put a stop to this form of carelessness which is almost unpardonable.

CHAPTER IX.

HOW TO YOKE WORK COLTS.

In yoking work colts intended for agricultural purposes it is often recommended to yoke them singly in "clogs," but we are decidedly averse to the system as it is generally attended with more or less danger. There is nothing to steady the colt, and in consequence he will flounder about in all directions, entangling his legs amongst the ropes, and pulling himself down. There are many other mishaps which may easily occur by this practice, and hardly anything will teach a colt to kick sooner than by getting his legs wound up among the ropes.

BEST IMPLEMENT IN WHICH TO YOKE COLTS.

Probably the safest method of yoking a work colt is to put him on the off side of a steady, ready-working horse, and the most suitable implement in which to yoke him is an ordinary plough. If anything goes wrong an active man at the plough can easily shift it at once so as to prevent the chains getting entangled amongst the colt's legs. It is a good plan to roll the chains half way up with pieces of sack, so that if the

colt should struggle and get his legs over the chains, it will prevent him getting them rubbed or blemished. The breaker should put a strong straw collar upon him, and it is generally better to have it *slightly* on the large side as it will slip easily and smoothly over his head without frightening him and causing him to acquire the awkward habit of throwing up his head when it is being put on. At the same time it will be less likely to injure his shoulders than one that is rather small, or even the exact size, besides some provision should be made for the colt increasing in condition. As in all other cases, the ordinary rope halter should remain on his head beneath the bridle. The breaker should use a bridle without "blinders," as the colt will be better able to see what is going on around him, and in consequence he will understand with greater aptitude what is required of him. As a rule the plain ring snaffle is the most suitable bit that can be used (Fig. 11).

HOW TO TIE THE COLT.

The breaker should place a strong rope round the middle of the near-side horse, then twist it thrice round the backband to prevent it slipping backward or forward, and attach the halter-shank of the colt to it. It should be kept about three inches shorter than the ordinary cord from the bridle ring, so that if he bound forward he will not receive such a severe check as the major part of his weight will bear upon the halter instead of the bit.

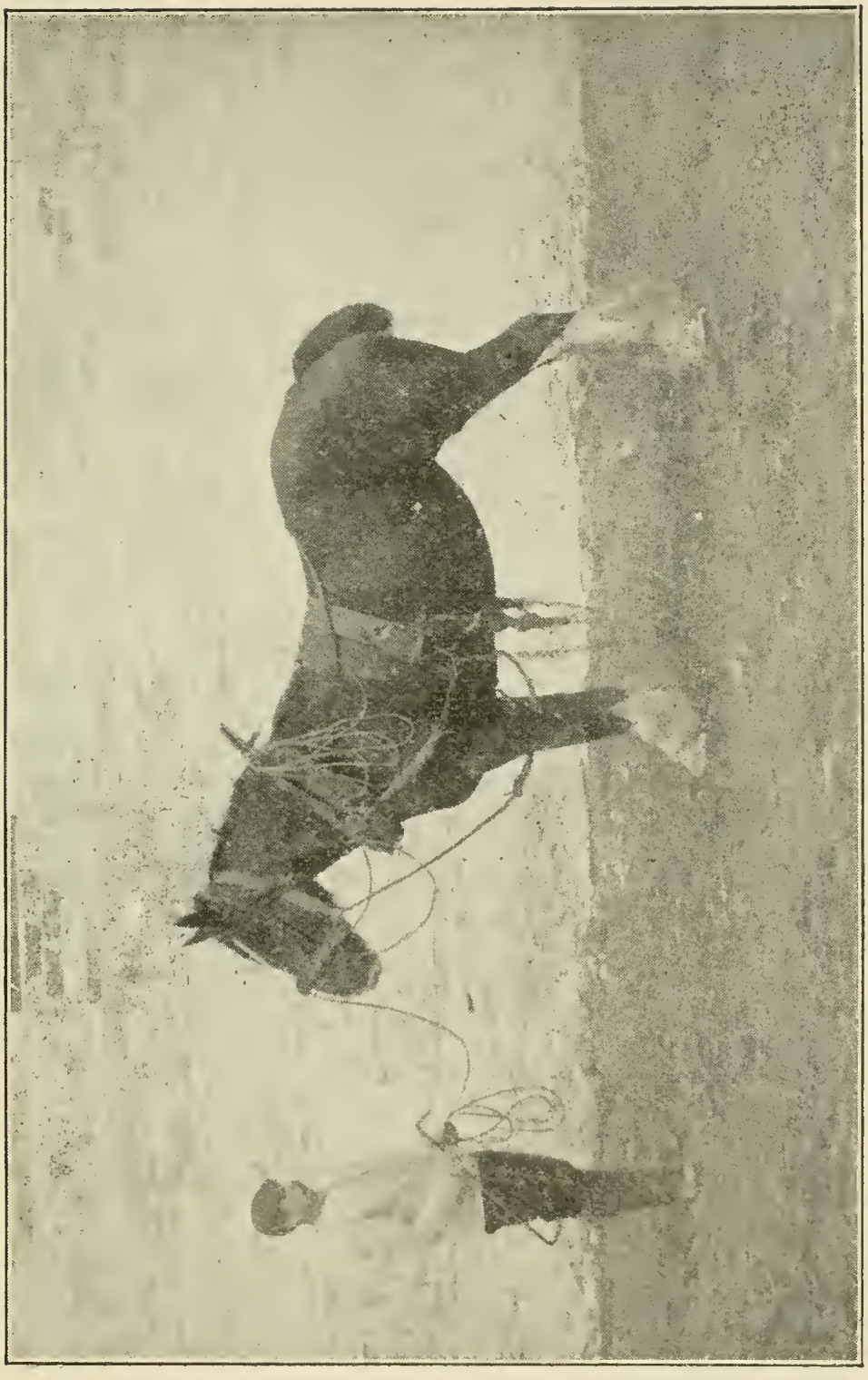


Fig. 11.—Work Colt Harnessed for Plough.

In addition to the ordinary reins of the driver, an extra pair should be attached to the colt so that he can be guided to right and left with perfect ease and freedom. Whenever he is securely tied, the breaker should attach the chains to the draught trees, and gradually lengthen the reins by going backward, slipping them through the hands, until about three yards to his right rear.

HOW TO START THE COLT.

The breaker should let the man at the plough look after the near-side horse and endeavour to get both horses in motion at the same time. If the colt is allowed to start before the horse, he will, in nine cases out of ten, rush back after throwing his weight into the collar ; and while he is rushing back the near-side horse will be going forward. Very often, by a want of attention at this particularly critical stage, the horse and the colt will jerk backward and forward alternately in opposite directions. This causes a great deal of trouble and inconvenience, and it has a distinctly bad influence on the future starting of the colt. If they cannot really be set in motion at precisely the same moment, the breaker should always endeavour to start the old horse first. If the colt should appear unwilling to start, he should move the other horse forward, at the same time steadily working the reins of the former and encouraging him with gentle and assuring words. He will generally move forward at once, but if possessed of a very hot temper he may

plunge a little until he realises what is wanted of him. In the latter case the breaker must on no account whip or abuse the colt or he will misunderstand the punishment and will naturally connect it with his present surroundings, and may rebel in future under similar conditions. On the contrary, the breaker must exercise patience and initiate the colt into his work by coaxing rather than by thrashing him.

THE BENEFIT OF A LIGHT FURROW.

The breaker should always avoid giving the colt a furrow to pull at first. The empty plough is quite sufficient for him to draw for several rounds. In turning at the ends he should be made to circle widely round until his confidence is assured and he become familiarised with the chains rubbing against his hocks. After he has gone five or six rounds a light furrow may be taken and its depth gradually increased in order to accustom him to pulling; but the breaker must studiously avoid giving him too much to draw, and should also avoid working him too much at first as it may blister and injure his shoulders, and if he is kept too long at it he will grow tired and sick of the work. An hour-and-a-half is long enough the first day ; and for the first week two hours daily will be quite sufficient.

HOW TO UNYOKE THE COLT.

The breaker must be very careful in unyoking the colt, always undoing the chains first, leaving the

fastening cords till the last, and all the while making much of him by patting him about the head and neck.

On taking him home to the stable, the breaker must get the ploughman to mount the old horse, handing the leading cord of the colt to him, while it is a good plan to follow behind, and with an indication of the whip to keep the colt well up alongside the other horse, and he will thus at once learn to become a good leader.

HOW TO PROTECT THE SHOULDERS.

If the colt is warm on entering the stable the collar should remain on his neck until he is cool, as already explained. As soon as he is cool it should be removed, taking care not to frighten him as it is slipped over his head, and his shoulders should be washed with lukewarm water in which a little salt has been dissolved. They will thus become hardened in something like half the time they would naturally take if left alone. This is a matter requiring the greatest care and attention, for if his shoulders are allowed to become blistered and broken he will resist the pressure of the collar, and nothing is more productive of jibbing than broken shoulders in colts. In cases where the shoulders actually get broken the parts should be well oiled, and the colt laid off work until they are healed. Before again yoking the colt, the portions of the collar directly opposite the injured parts of the shoulders should be well beaten with a mallet, which will soften them

and neutralise the acute pressure. It is occasionally recommended to cut out the stuffing of collars where they pinch the shoulders, but this is a bad plan as it only tends to increase the area of the injured parts. Prevention is generally better than cure, and if the directions given above are adhered to few cases of broken shoulders will occur.

ADVANTAGES OF SHOEING.

It is generally advantageous to have the colt shod before he is yoked, especially in the fore feet, as without shoes he has nothing to hold by, and, in addition, is very apt to slip, occasionally laming himself, and causing him to develop into an unsteady worker. In consequence of the colt going in the open furrow he has a tendency to wear the outer walls of the hoofs. This is much aggravated if he is allowed too much head as he will naturally wander a good deal, stepping on the land and in the furrow alternately. The same directions as previously given in shoeing colts should be adhered to, with the slight difference that the shoes are better to be made with very low heels rather than absolutely flat, which gives them a firmer hold on soft slippery land.

HOW TO PUT COLTS IN CARTS.

In yoking agricultural colts in carts, the same directions as given in the previous chapter in the case of breaking higher bred colts to harness will prove to be sufficient.

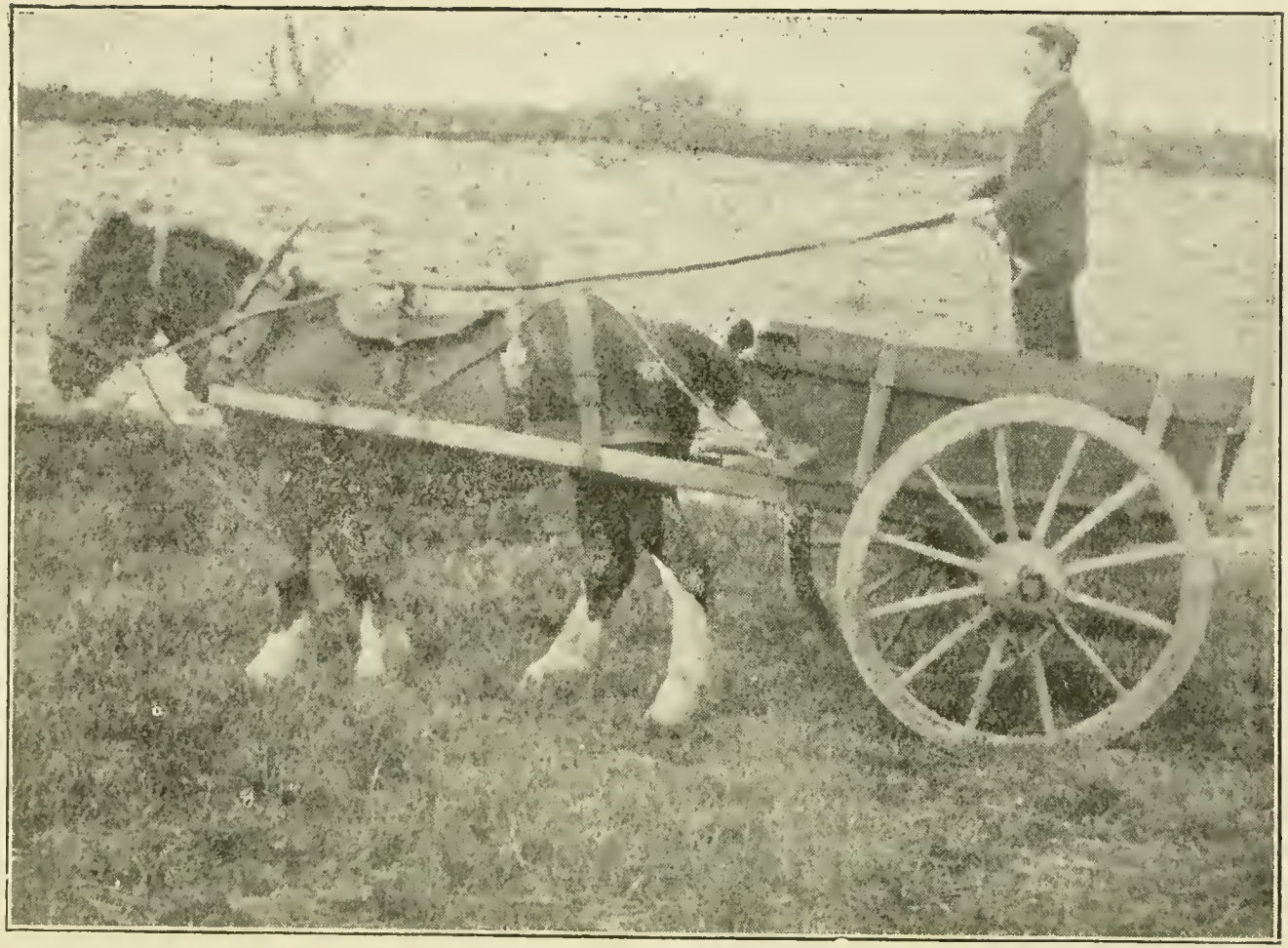


Fig. 12.—Work Colt in Cart showing Kicking Straps.

Instead of having leather kicking straps, however, thick ropes adjusted in the same manner, crossed over his croup, will be more efficient, as they are generally stronger and will consequently stand the strain better (Fig. 12). They should be drawn pretty tightly over him, leaving him just sufficient room to move freely beneath them.

All the draught hooks before and behind should be securely tied with a piece of cord to prevent the chains shaking out of them if the colt should plunge and struggle. Numerous accidents frequently happen by the omission of this important item. Many men do not take the trouble to attend to these small matters, and when anything goes wrong the innocent colt invariably gets the blame. He is voted a "bad one" by the careless breaker, when, in nine cases out of ten, the cause of the accident can be accurately traced to pure neglect on the part of the latter.

DOCKED VERSUS UNDOCKED COLTS.

Work colts should preferably be docked when young. Light tails keep them cooler, and they are not so apt to whisk them over the reins. When a colt becomes confirmed in the bad habit of catching the reins under his tail, it is not only inconvenient to the driver, but it is ofttimes very dangerous as well, for if he choose to bolt the driver is practically powerless to arrest him, as he can simply go where he likes. It is also a means of teaching a colt to kick. With horses addicted to catching the reins

under the tail, the reins should be inserted through the lower rings of the backband, which arrangement acts as a good preventive.

When foals are operated upon at the age of six weeks the pain inflicted is comparatively little, and the danger is reduced in the same proportion. All those who have had the practical management of docked and undocked horses will readily throw in the balance of favourable opinion for the former. If the directions for yoking work colts are adhered to and applied with patience and kindness according to the peculiar temperaments of different colts, the results will generally be marked by success and shy-starting and jibbing horses will be reduced to a minimum.

CHAPTER X.

JUMPING.

Probably the best system of teaching a colt to jump is to take a single bar—a young fir tree that he cannot easily break is most suitable—and it should be fixed so that if he strike it he cannot knock it down. When the bar is easily knocked down the colt grows careless and is not induced to make his best effort. The bar should also be tightly wrapped with furze, the prickles of which induce him to pull his legs higher up, and he will be less likely to injure his pastern joints than on coming in contact with the bare bar. It should not be placed too high at first, and its height should be gradually increased each day in proportion to the jumping capacity of the colt. One end of the bar should be securely fixed into a hedge or wall which will prevent the colt shying past the end, and the trainer can prevent him shying past the other end by standing well forward. The post at the open end of the bar should have a sloping rail running up from the ground on either side of it which will carry the rein over without its getting entangled on the post (Fig. 13). The colt should

always be thoroughly well trained to jump in the long rein before being ridden over the bar. The

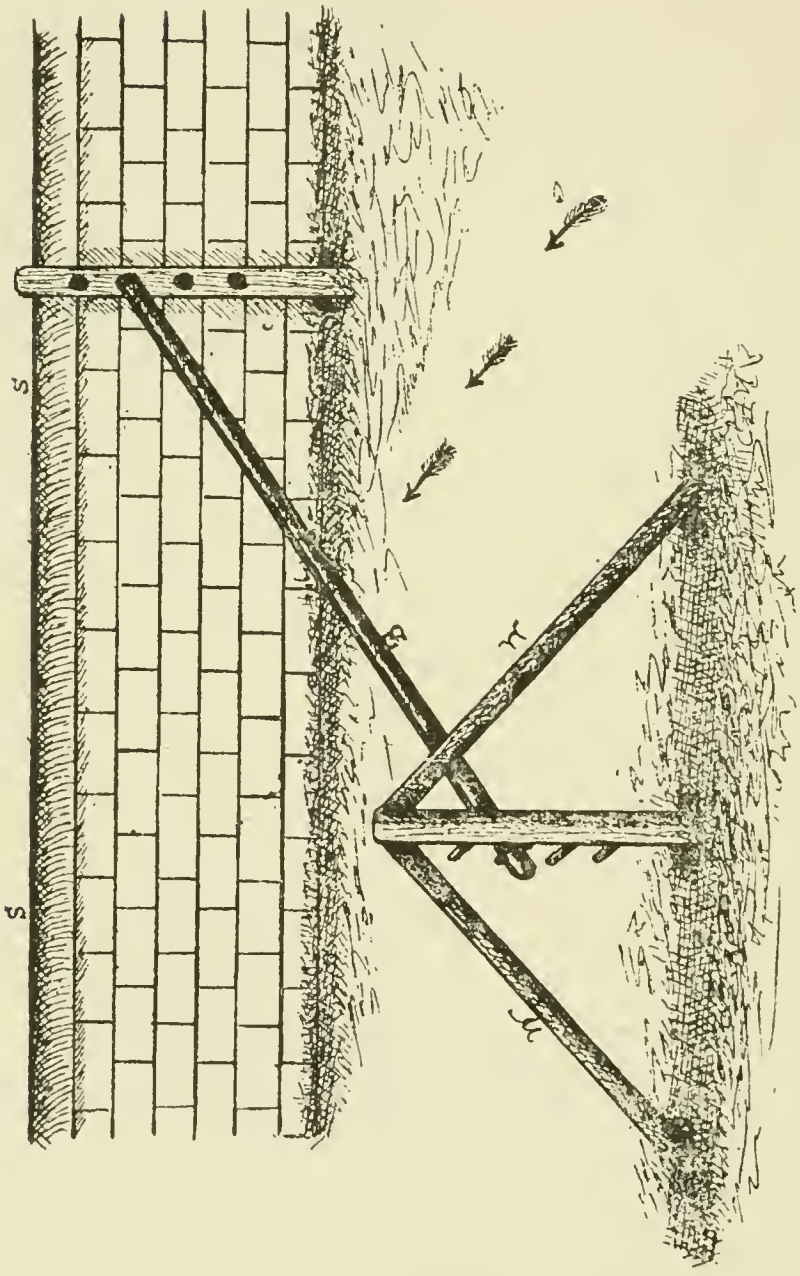


FIG. 13.—JUMPING BAR. S S—Stone Wall; B—Bar; W W—Wings; ⟵ Proper Course

rein should not be less than twelve yards in length, and it should be fixed to the front ring of the caves-

son which will not check the colt when he gets to the end of it. Before the colt is ridden over the bar, a wing, consisting of a couple of pretty high hurdles, should be placed at the open end, and he will be less likely to shy past. The spot chosen for jumping should be reasonably soft, and the colt should be shod slightly short rather than long in the fore-feet so as to prevent him pulling himself down by over-reaching. A colt is very liable to do this until he become accustomed by practice to steady and collect himself both in approaching the fence and in alighting at the other side.

HOW TO TRAIN THE COLT TO JUMP.

The colt should be coursed round in a circle in both directions, the instructions for which are given in a former chapter. His head should not be confined in any way, the reins simply being fixed to the saddle by putting the stirrup leathers through them so as to prevent them getting over his head.

The bar should only be about two feet high at first, and it may be raised a few inches each day as the colt becomes familiar with his work. The colt must never be put over it more than half-a-dozen times each day or he will grow tired and careless. If special attention is paid to this important point, and the colt kindly treated, always making much of him when he jumps it well, he will soon grow exceedingly fond of the sport, and if mounted upon a good set of legs he will soon become a bold

and safe jumper. It is never desirable to put a colt at a high, stiff fence, unless there are hounds in front of him, because in cool blood he can scarcely be expected to make his best effort. In calm blood he might fail to clear a fence which, in the excitement of the chase, he would fly over like a bird.

HOW TO RIDE THE COLT AT A HIGH FENCE.

The colt should never be ridden fast at a fence, with, perhaps, one exception—a hand-gallop is fast enough. He will negotiate a five feet wall more successfully at a canter than he will at full speed. In fact, at the latter pace he might run straight through it, or carry the fence away in front of him, as he would have no time to collect himself sufficiently to rise to the required height. A great number of men think the faster a horse is ridden at a fence the higher he will jump, but such an idea is a complete mistake. If the colt is galloping fast on approaching a fence he should be taken well in hand and steadied down about fifty or sixty yards before reaching it so that he may collect his legs beneath him for the spring. Assistance should never be offered to the colt in the way of what is scientifically termed "lifting him" if he does not require it, for if he is well ridden he will generally "lift" himself best if left alone (Fig. 14). In fact, only one man in a hundred can successfully "lift" a horse at a fence, and the remaining ninety-nine had

better never try. They will generally make some mistake by doing it too soon or too late, and the attempt will have worse results than if it had never been made.

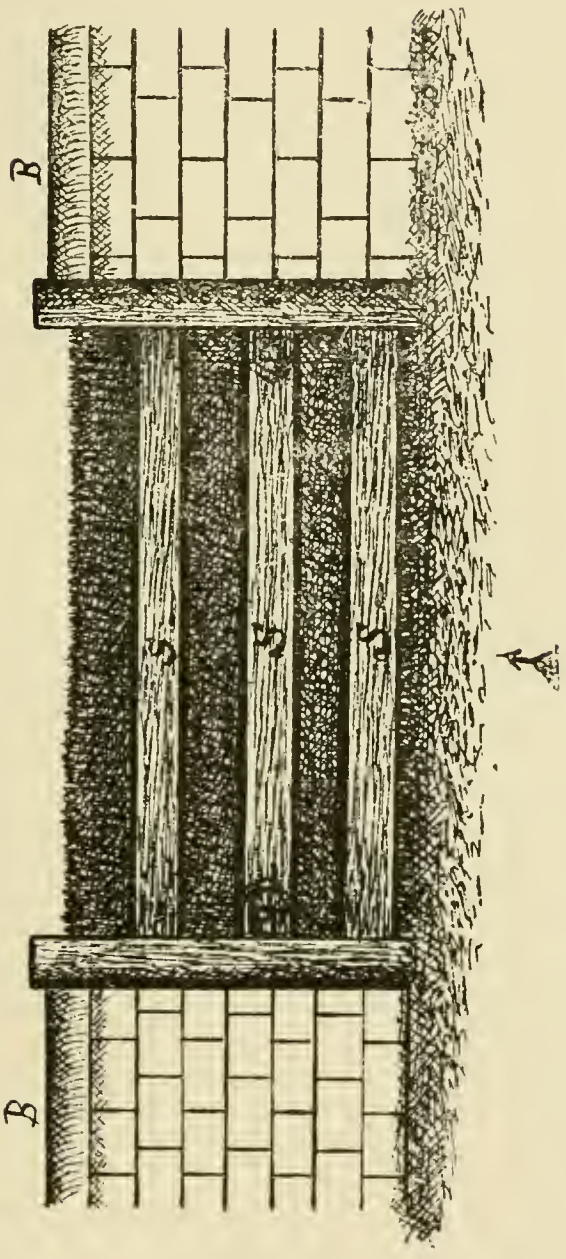


FIG. 14.—HIGH JUMP. S S S—Swing Hurdle; B B—Brick Wall; Direction.

Of course, "lifting" a horse is a mechanical impossibility in the ordinary application of the word, but this scientific equestrian term will be fully explained in a subsequent chapter devoted to Polo and Polo Ponies.

Many a good jump is spoilt on the part of the rider by offering help in the way of "lifting" at the wrong time; and not infrequently a number of "spills" can be traced to futile attempts to accomplish this extremely difficult equestrian attainment.

HOW TO RIDE THE COLT AT A WIDE JUMP.

The exception referred to in the pace is when running a colt at an open ditch or brook when distance instead of height is the essential requirement. In order to accomplish wide brooks or open ditches successfully they must be taken at a flying leap, and the colt should be ridden to them at racing speed. If a colt requires to be pushed at a brook it is preferable to use the spurs, because if he is forced by the whip or switch he is apt to swerve and refuse. The hands must be held well down and the colt steered straight at the brook, and he should always be allowed a free head when he makes his spring (Fig. 15). If this point is neglected in all probability he will jump short and go down in the middle of the brook, while his rider will run the risk of turning a complete somersault in the air, and of getting a good ducking in the water. At the same time he may very easily get his neck broken. Numerous accidents occur at water jumps by horses not being pushed fast enough at them. The high rate of speed at which horses ought to be ridden at such obstacles naturally carries them across with greater facility.

HOW TO JUMP DOUBLE FENCES.

In order to accomplish the chequered work of the hunting-field, the colt should be carefully trained to negotiate a double fence quietly and steadily.

These fences generally consist of two hedges about three yards apart, with an embankment of earth in the centre, and occasionally a ditch at the root of

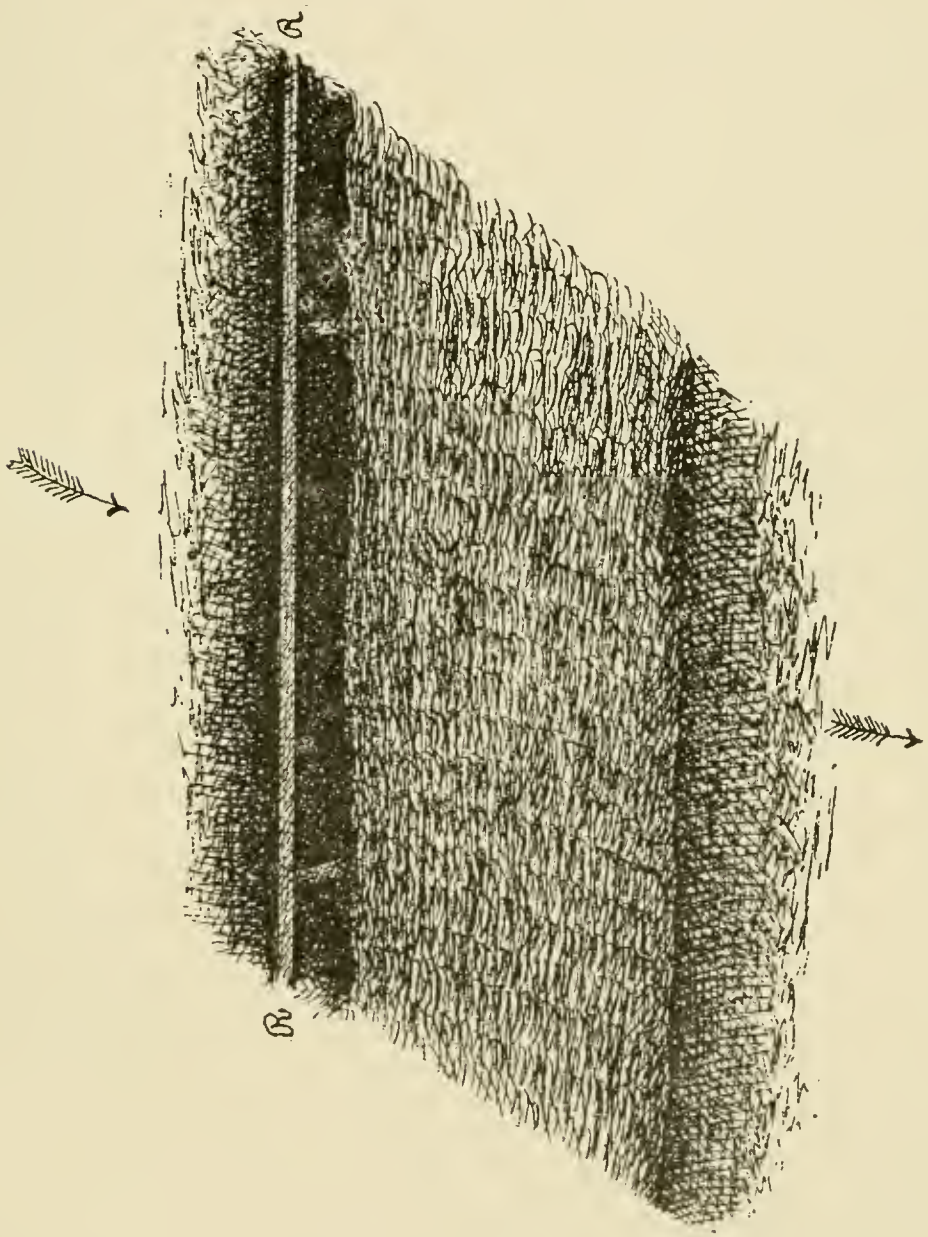


Fig. 15.—Water Jump. R R—Rail; ⟵ Direction.

one or other of the hedges, and sometimes at both. It is impossible to get over an obstacle of this kind at one jump, therefore the colt should be specially

trained to get over at two springs. He should alight on the embankment in the centre and make his second effort without changing his footing. As soon as his hind feet touch the embankment he should spring again without making any appreciable pause, and the impetus of his first effort will successfully carry him over the second. The colt should be trained to accomplish this either at a trot or a walk as local circumstances demand. A fiery, hot-tempered colt that will only jump such obstacles when allowed to rush at them at full gallop is a most dangerous animal to encounter, because, in all likelihood by attempting to get over at a single bound he may alight with his forelegs in the middle of the second hedge and turn a somersault over it at the risk of dislocating his neck and also that of his rider.

STONE WALLS AND WIRE FENCES.

A stone wall should be jumped at an easy canter. When a horse fails to clear it he is almost certain to come down and injure himself. The cope-stones should always be pulled off before attempting to jump the wall. They are often sharp and rugged, and a horse may cut his legs badly by coming in violent contact with them. The stones should always be pulled to the side on which the wall is jumped from. If pushed over to the other side the colt may alight on some of the loose sharp stones and come down cutting his knees open to the bone. It is never safe to attempt a high stone wall with a colt, nor indeed

with a horse, unless he is a thoroughly reliable jumper.

No horse should ever be ridden at a wire fence. He may not see the wire and he would simply go over it heels over head, or he might entangle his legs in the wire and break them in his frantic struggles to free himself. Only a fool will ride a horse at wire. Barbed wire should always be given a wide berth, indeed, it may appropriately be termed the primary curse of the hunting field.

THE INFLUENCE OF A NERVOUS RIDER.

The reason of a great number of accidents is largely due to a decided absence of nerve force on the part of the rider. For example, if a good jumping colt is ridden to a fence by a nervous rider in the majority of trials he may refuse even though he is whipped and spurred to it. The colt feels his rider's seat in the saddle, the uncertain pressure of his legs, the infirm touch of his hand on the rein—in short, his whole bearing on the colt is one the reverse to inspire him with confidence. There is no sympathy between them, and in such hands the colt will rarely jump, or, if he does he is almost sure to make some mistake, and from no other cause than his rider's nervousness. On the other hand, put a good horseman with a firm nerve upon his back and he will fly over the same fence with perfect ease and safety.

INDICATIONS OF JUMPING.

It may appear to the uninitiated to be a gross exaggeration of the actual facts, but it is nevertheless true that an experienced rider can tell with reasonable certainty when the colt is within fifteen or twenty yards of the fence whether or not he is likely to jump it, and, further than this, the rider can even determine with wonderful accuracy whether or not the colt is likely to jump it well. A horse will rarely jump if his ears are lying back. In most cases he will swerve and refuse. And if his ears are continually on the move—the one back and the other forward, alternately—a "spill" may safely be calculated upon when the fence is reached, because if he does jump rider and horse will probably arrive at the other side struggling together in a confused and awkward heap. On the other hand, if his ears are straight forward and stationary he will probably jump every time without fail.

THE RIDER'S FEELING OF A HORSE.

These are the principal indications of ascertaining whether a colt is likely to jump and whether he is likely to jump well. There are numerous other sympathies and feelings, however, between the rider and the horse which cannot possibly be imparted by theory, but can only be understood and acquired by practice; and even a great amount of practice is necessary to attain to anything approaching that

splendid equestrian science which at once makes itself apparent in the finished horseman, in the eyes of men, and in the feelings and instincts of horses. A finished horseman is known by men from his attitude in the saddle and general bearing on the horse; by horses, from his whole touch and powerful influence on their sensitive and peculiar temperaments.

But no one can acquire any such mastery over the horse by theory, nor will he ever acquire it through a channel likely to impart such mischievous misgivings as impatience and harsh treatment. At all times general kindness must be exercised, and with perseverance and a steady nerve all these attainments which have been mentioned will naturally follow. "Rome was not built in a day." No more can such attainments be acquired in a day, or a week either, but if the suggested methods are steadily prosecuted the results will far exceed the highest anticipations.

CHAPTER XI.

MISTAKES AND THEIR CAUSES.

It is simply impossible to lay down a precise set of rules by which to be entirely guided, for, as previously stated, horses vary as much in temperament as individuals so that what is applicable for one would not be applicable or even necessary for another. It is not held that, in advocating general kindness, a horse should never be corrected. On the contrary, he should never be permitted to make a single mistake without being checked, and checked in proportion to its nature and extent, and according to his particular temperament. At the same time, however, it is an acknowledged truism that probably ninety per cent. of mistakes with which the horse is credited arise through mismanagement in some way or another, and only the remaining ten per cent. properly belong to the horse. The horse is too often used like a machine. He is sent along like a motor car without the least consideration being given to his wind and limbs, or the nature of the road he is travelling over. Some men never seem to realise that it is possible to tire a horse, and expect him to go on interminably, and the poor animal, in such

hands, leads a life of pain and misery. He is unduly subjected to sudden heats and colds, which develop rheumatism and other diseases, and in this manner he is made to appear old and stiff long before the natural period for such indications.

HOW TO PREVENT MISTAKES.

If a horse stumble he should be smartly pulled together, but not punished. At first sight, this may be considered a mistake entirely due to the carelessness of the horse, but a little thoughtful consideration may put a very different complexion on the matter. He may be carelessly ridden, the road may be rough, he may be fatigued by a long journey, a shoe may be hurting him—in short, a hundred and one other circumstances may have caused him to stumble, all of which may be directly traced to the carelessness and unkindness of his rider.

If the rider habitually exercised care and kindness towards the horse, no such causes as those mentioned would occur. He would ride him carefully, give him time over a rough part of the way, never ride him too far at a time, see that his shoes were in order, and, in all probability, had those matters, small in themselves, been properly attended to, the stumble would never have occurred. But too often in such cases the spurs are dug in and the whip applied most unmercifully, and not infrequently the poor, faithful brute is brought down with his knees lacerated and bleeding. Thus, through

the ignorance and brutality of his rider the unfortunate horse is permanently disfigured, and he is sold for a few pounds to drag out a weary, miserable existence in some lower sphere of labour in the busy world of turmoil and din.

DRUNKEN RIDERS.

Many cases of broken knees in horses can be identified with carelessness and unkindness arising out of different circumstances in different cases. It is lamentable that it should be so, yet, so long as there are careless, cruel, bad-tempered, and drunken men, so long will there be smashed knees in our poor horses. And here it may be asked of those who favour the evolutionary theory that the horse possesses reason, if he would ever submit to the wanton abuse often inflicted upon him by a drunken rider? Nay! he submits in deference to his rider's wish, in accordance to the dictates of his own instinct, while such a rider descends from the loftier platform of intelligent reason and reduces himself parallel with the dumb creature he tortures. In a case like this, instinct, though not stronger, is certainly more consistent than reason, distorted as it becomes under the evil and demoralising influence of drunkenness.

HOW TO DRIVE UP AND DOWN HILLS.

In the case of driving, like riding, the great majority of accidents that casually happen can be

distinctly traced to the same baneful source. A horse should always be allowed to walk up hill and down hill when they are unusually steep, and if this method is followed it will be no unkindness to ask him to push on at a good pace where the road is level. In this humane manner more ground will be covered with much more satisfactory results. The horse will not become fatigued, because he is driven in a reasonable way; whereas, if he is driven "up hill and down dale," as the saying goes, he will soon become "bottomed" and useless for anything in the nature of rapid work. His durability and courage may be seriously impaired, and when a colt is once thoroughly tired out it is doubtful if he is ever the same again. His constitution, stamina, and spirit seem to lapse, and his whole temperament undergoes a radical change for the worse. To obviate any such deterioration in the temperament of colts they should not be hurried when ascending and descending steep banks.

HOW TO CORRECT A HORSE.

In checking a horse for a mistake he has committed, it should always be done at the moment the mistake occurs, and then he can reasonably be expected to understand what the punishment means. For instance, when a horse attempts to throw his rider, the latter should find out, so to speak, if he is in earnest in his endeavours, because a fairly good horseman can easily know by the appearance

and movements of the horse whether he is trying to throw him through mischief, or whether he is merely frisking in play. If the horse is only playful and fresh, he should not be punished at all, but only drawn well together and gently steadied down. On the other hand, if he is indulging in the more serious caprice of trying to get rid of his rider, he should be well taken in hand, and the whip brought smartly across his shoulder twice or thrice. In such circumstances he must not be continuously whipped or he will be sure to resist, and his temper may easily be broken in the contest. If he should still persist in his efforts to throw the rider, something else should be tried. He should get a taste of the spurs, and if this fail a good gallop will generally be effectual in bringing him to his senses. The saddle should always be put upon the back of a horse a quarter of an hour before he is taken out, in order that it may get warmed before he is mounted. A number of horses will kick and buck under the pressure of a cold saddle, particularly when they are newly clipped, that would be quite quiet if the precaution of warming the saddle were regarded.

STEADINESS.

Quite a number of accidents occur by horses moving off at a trot or a gallop when the rider is only partially mounted. This is generally a result of defective breaking. A colt should never be permitted to move until the rider is fairly seated in

the saddle ; nor should the latter dismount until the colt has been brought to a standstill. Mounting and dismounting when a horse is in action may be clever equestrian feats in the circus, but they are generally indicative of bad horsemanship on the road or in the field. In the hunting field, a horse that is restive on being mounted or dismounted is a veritable nuisance, as all men who are experienced in hunting can testify. A horse of this kind will bound forward as soon as the foot is inserted in the stirrup, and, if tightly confined by the head, he will circle wildly round, which renders mounting next to impossible. Of course, some animals are possessed naturally of excitable temperaments, and it is not to be expected that absolute steadiness can be procured in them, still, patient and firm treatment will go a long way towards modifying extremes. Prevention is better than cure ; it is easier for a colt to learn a good habit than to unlearn a bad one, therefore time expended in his early tuition is not wasted, because it may be more than recovered in the future behaviour of the horse.

FLIES.

Horses of peculiarly excitable temperament, and possessing thin skins, sometimes become practically unmanageable in consequence of the irritation caused by flies. They have been known to throw themselves down, bolt, and otherwise lose control of themselves when persistently annoyed by flies. Although this

form of irritation cannot possibly be absolutely prevented, it can be ameliorated to a great extent by applying a little oil to the more tender parts, the ears, nose, flanks, inside of the legs, the sheath, and the hips under the tail. The oil should be lightly rubbed on with a piece of cloth, but not so thickly as to clog the hair and cause dust to adhere to it. In some districts nets are worn upon horses, but whilst they are pretty effectual in keeping off flies they tend to heat horses, and look rather clumsy. Net "ear-caps" may be worn with advantage, as well as "sun-bonnets" under a broiling sun. Care must be taken with these latter pieces of headgear, however, in order to see that they fit properly, otherwise the prevention may be worse than the disease. In very hot weather the polls of horse may occasionally be cooled by the application of a damp sponge, which has a wonderfully refreshing influence.

LEAVING HORSES UNTETHERED.

The nature of the work of many horses, such as vanners, etc., necessitates their occasionally being left alone when delivering goods. In all such cases the pressure should be removed from the shoulders by turning them across inclines if practicable, or otherwise braking the wheels. During rough blasts of rain and snow the hind quarters of horses should always, if possible, be turned towards them, as that is the position horses assume under natural conditions.

Numerous accidents occur by horses backing round to avoid showers of rain and hail, which a little forethought and humanity on the part of drivers might have prevented. These may be considered small matters, but it is by attending to small things that great things are achieved.

CHAPTER XII.

SHYING AND JIBBING.

Persistent shying in horses is a disagreeable as well as a dangerous habit to encounter, and it can generally be traced to three distinct causes—viz., extreme nervousness, defective eyesight, and dark stables. Some horses are also addicted to shying when too fresh and fit, but as this is simply the result of idleness the prevention is obvious. When hunters are laid idle by adverse weather—frost and snow—it is easy to give them exercise in the long rein without risking their limbs on slippery roads or causing sprains by overreaching and "balling" amongst deep snow. When the track becomes fairly consolidated both slipping and "balling" are avoided.

SHYING FROM NERVOUSNESS.

A horse that shies from nervousness can rarely be cured, although by kind treatment he will generally gain more confidence, but when anything unusual occurs to excite him he will probably manifest symptoms of fear, in some degree, as long as he lives. If he is being ridden along a road and shy at some

unusual object of the wayside and refuse to pass it, he should in no circumstances, however provoking, be punished, because it is fear that prevents him passing. If he is punished he actually conceives the idea that it is the object by which he is frightened that is hurting him, and he will resist for an hour before he passes it, and perhaps he may not be induced to pass it at all. By punishment he may remember the same place for years after with dread, whereas, if he is patted and urged gently with kind words he will soon walk past. He should be ridden past the object of his alarm two or three times, after which he will generally allow himself to be ridden quite close to it in the most assured manner. Thus, through kindness, we accomplish in a few minutes what it would take hours to overcome by force and cruelty and with a far more successful result, the effects of which will be apparent in the future behaviour of the horse (Fig. 16).

SHYING FROM DEFECTIVE EYESIGHT.

When a horse shies from defective eyesight he can never be cured if both his eyes are affected, for the older he gets he will gradually grow worse, until, perhaps, he goes blind altogether. He is then of comparatively little use and probably the best thing to do in such a case is to destroy him. A full explanation of a humane method of destruction will be found in a subsequent chapter. If one eye only is affected, which can generally be discovered from

Fig. 16.—Shying.

the horse always shying to the same side, he can be cured to a great extent by entirely covering up the defective eye, leaving the sound one exposed. A leather "blinder," well hollowed in the centre and attached to the side of the bridle will serve the purpose, because to damage the orb in order to procure complete blindness is a very cruel and painful operation. A horse of this kind should never be punished on shying, because his defective vision generally magnifies and distorts objects, and they consequently appear unnatural to him. Such cases, however, are very exceptional as there is a direct sympathy between the nerves of the eyes which generally affects them both to the same degree.

SHYING FROM OCCUPYING DARK STABLES.

Only those who have had practical experience in the matter can realise the enormous number of horses that shy through occupying dark and badly-ventilated stables. It has just the same effect upon a horse when he is taken from a dark stable into the light of day as it has upon an individual going from the darkness of night into a brilliantly-lighted room. Everything appears dazzling before the eyes, and it is scarcely possible for some considerable time to discern things aright; and so it is with the horse, with the difference, however, that his case is even worse, as it is aggravated by continually occupying a dark ill-ventilated stable. He cannot see clearly in the open, and the least thing by the way-

side will cause him to shy violently to right and left, and not infrequently the object which appears to frighten him is quite chimerical. Herein lies the great danger of being taken unawares for he will often shy with great rapidity, when, to the eyes of his rider, no frightful object is apparent, which clearly proves that the fear of the horse is due to an optical delusion.

THE CONSTRUCTION OF STABLES.

Stables should be commodious and warm with wide, level stalls. Draughts are very conducive to colds, and stalls placed on an incline are a continuous discomfort as horses either standing or lying are never at ease. They should be constructed without lofting, and should be well lighted and ventilated. Lofts are rarely put into new stables nowadays for three very sufficient reasons:—first, they are very unsuitable for the storage of hay in any quantity, because the vitiated air emitted from the horses permeates it and renders it very unfit for fodder by becoming musty, which is productive of coughs and defective wind; second, lofts prevent the entrance of light from the roof, which is recognised as the best source from which to obtain it, because with cross-lights from the roof the light will penetrate into every corner of the stable; and third, proper ventilation is simply impossible with lofting. Thus dark ill-ventilated stables are conducive to shying in horses, and the best preventive is a liberal admis-

sion of sunlight along with a regular entrance of fresh air. The construction of stables, however, will be fully discussed in a subsequent chapter.

JIBBING.

Probably ninety per cent. of the jibbing horses we see amongst us have been made to jib through carelessness by overloading them at first. Nothing will spoil a colt sooner than by making him pull a load for which he is physically unfit. He will struggle and strain for some time until he feels it is too much for him, when he will stop, and run backward to relieve his shoulders from the pressure. In future he will be shy to start another load, if, indeed, he will draw an empty cart (Fig. 17).

All those who have had the experience of a jibbing horse know well what an unmanageable brute he is when thoroughly confirmed in this bad habit. Neither coaxing nor whipping will induce him to pull when he takes it into his head to refuse; we have known a pronounced jibber stand for several hours before he could be compelled to start. We have even seen a jibber so determined that he would throw himself down when punished, necessitating his being unyoked, which is always a bad precedent, as he will repeat it whenever he is punished knowing that in doing so he will be relieved from work.

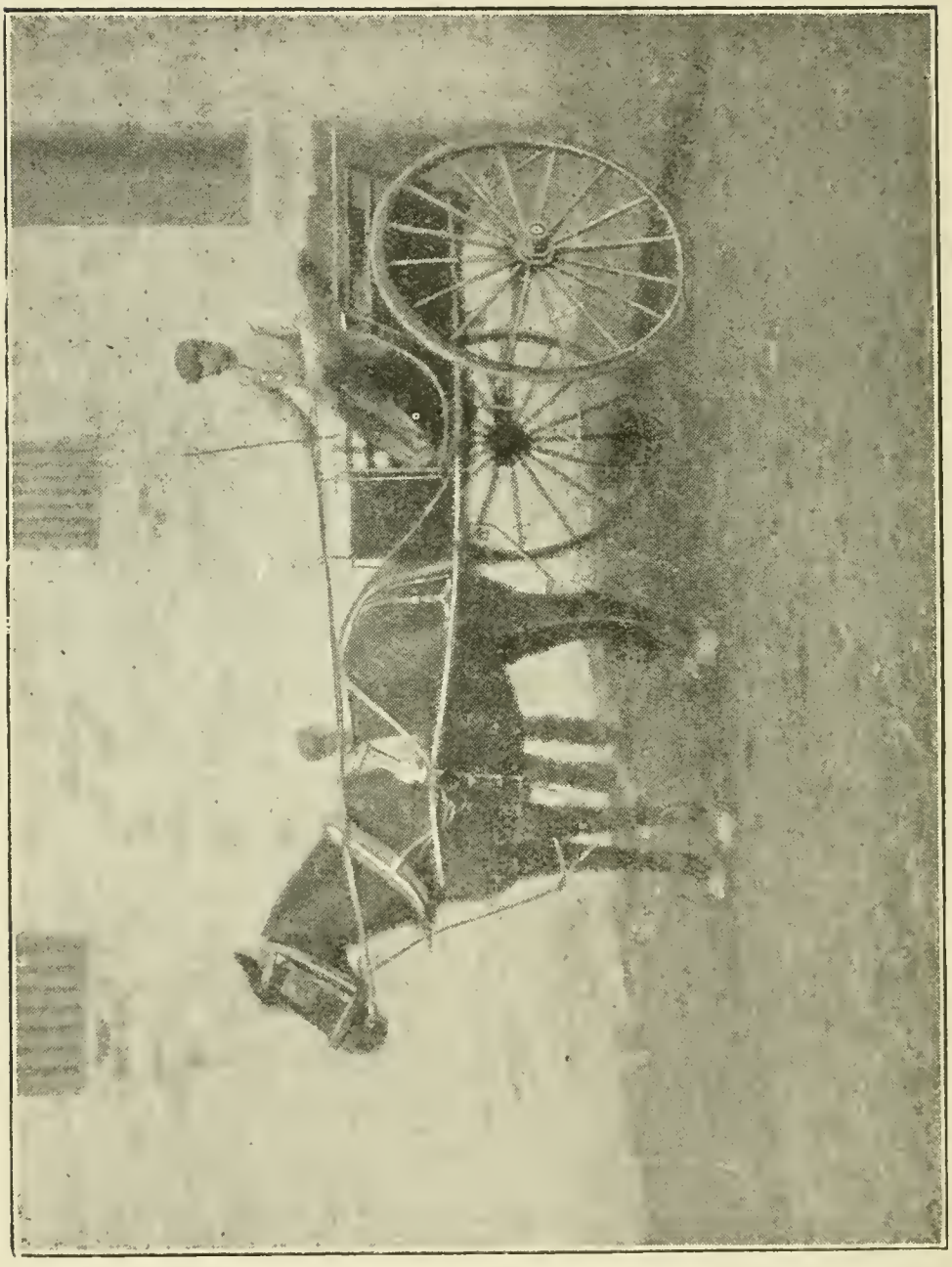


Fig. 17.—Jibbing in Harness.

HOW TO START A JIBBER.

We shall describe a simple method which, when applied by good hands, will generally be effectual in mastering a jibber when all other treatment fails. viz., *to convey to him for the moment the artificial idea that he is wanted to go in the opposite direction to that in which he is being driven.* But while this matter is comparatively simple in practice to a good horseman it is very difficult to reduce to print, for, as already pointed out, different temperaments require varying degrees of treatment, even though the treatment in the main be the same. All the circumstances of the case must be considered—the place, the time, and the nature of the position. The moment the horse stops the driver should turn him abruptly round and impart to him the notion that he is wanted to go the opposite way. The driver should give him a series of similar rapid turns; then face him sharply in the original direction, and he will generally do as desired. If he should still remain obstinate, however, the driver must repeat the lesson with greater severity and wheel him rapidly round again and again according to the nature of the ground, and in a very short time he will be glad to go straight forward in the direction indicated.

PREVENTIVES TO JIBBING.

Shy-starting horses should always be harnessed a quarter of an hour at least previous to yoking them.

A number of excellent horses will not throw their weight into a cold collar, thus it is an advantage to warm the collars previous to yoking the horses. In the case of colts it is a good plan to lightly oil the inside of the collar before putting it on. By this, the pressure of the collar will not be so hard on the shoulders, and they are less likely to be injured in consequence. Jibbing, like most other bad habits acquired by horses, is more easily prevented than cured, indeed it is doubtful if a confirmed jibber can be thoroughly cured. In the hands of some men they will behave all right and do an enormous amount of work, whilst with others they will scarcely tighten a trace. Great patience and tact are necessary in successfully working jibbers. As soon as a jibber is yoked he should be driven off at once, care having previously been taken to place the trap so as to give the horse every advantage of the ground in starting.

A jibber should never be pulled up at the bottom of a hill, but should be allowed to ascend it in his own peculiar way. Many horses will negotiate hills at a trot or a gallop that will not walk up them. In such cases they should be compensated by being allowed to walk down hills in order that they may regain their wind. Generally speaking, tact and not force is the secret of success in working pronounced jibbers. Such expedients as thrashing, rubbing the legs with rough cord, kindling fires beneath them, and a dozen other absurdities, are simply barbarous and of no practical help whatever.

KICKING IN HARNESS.

Kicking is generally the result of carelessness and unkindness through overloading horses when descending hills. On single vehicles where no drag is attached the horse in many cases can scarcely keep upon his feet by the undue weight which is pressing him down from behind. Some men will say, "Oh, there is no fear, nothing has ever gone wrong yet"; but some day a strap may break, the trap will run forward on the colt's quarters, and thus he will get a first lesson in kicking which he will not readily forget. At the same time a well-trained horse will not be so likely to kick in such circumstances as a carelessly-trained one. If he has been carefully educated to understand what undue pressure means when he is broken he will remember it in an emergency like this, and if he does not remain quite passive at any rate he will not generally kick. On the other hand, a horse that has not been similarly trained will kick both trap and harness to pieces in very few minutes.

INCIDENT OF AN UNTRAINED HORSE.

We knew a farmer who owned a valuable horse that he had driven regularly for several years without a single mishap having occurred. One day, however, on going down a rather steep incline a strap gave way and forward went the trap on the horse's quarters, with the result that he kicked it to pieces

in a very short time. A groom happened to be riding along the road just as the disconcerted farmer had finished pushing the remains of the trap off the highway, and looking up, exclaimed, "Well, it beats all! I never saw him do it before!" "No," replied the groom, sarcastically, "he did it *behind* this time!" This, then, is a case where the horse was perfectly quiet so long as nothing unusual occurred to annoy him, but whenever the strap broke he went perfectly mad simply because he had never been trained to appreciate such an emergency. If he had, the unfortunate farmer in all likelihood would not have got his trap smashed.

THE RESPONSIBILITY OF TRAINERS.

The reason of the accident—at least the reason of the bad result—can be traced back to carelessness on the part of the breaker. Thus, the negligence of one man may be of serious consequence to another in the management of horses, for horses, like most other animals and commodities are continually changing owners, some for better and some for worse.

CHAPTER XIII.

BOLTING, OR RUNAWAY HORSES.

Bolting, so far as danger is concerned, is a bad habit which is only second to rearing, and only those who have been fortunate—or rather unfortunate—to have been on the back of a runaway horse can understand the fearful amount of danger in such an emergency, either on the road or across country. The latter, however, is infinitely more dangerous, for the horse rarely attempts to rise to anything in the shape of a fence but rushes headlong through it. In fact, the speed at which he goes prevents him doing anything else. In many cases a confirmed bolter is said to shut his eyes the moment he bolts, consequently he will run straight into any obstacle that may chance to be in the way, and the result often proves fatal both to rider and horse.

HOW TO STOP A BOLTER ON THE ROAD.

When a horse bolts it is of no use trying to stop him by continuous pulling. He has always the advantage in a contest of strength, therefore it is better not to try, for if the attempt prove unsuc-

cessful—and it is very likely that it will—the rider will suffer a defeat while the horse gains a distinct victory.

Probably the best system of overpowering him is to saw his mouth continually from side to side in rapid succession with the bit, giving an occasional heavy pull at short intervals, and in most cases he will yield to this device and suffer himself to be pulled up. If unsuccessful in stopping him, however, the only course open is to exercise great coolness and steer him round the sharp turns of the road as carefully as possible. This is easily managed when the road is comparatively free from sudden bends, but both difficult and dangerous when they are frequent.

Whenever he shows indications of stopping, both whip and spurs should be vigorously applied, and the horse kept going on a good deal further than he wishes, and he will not be in such a hurry to bolt again. This counteraction of the rider will cure a bolter sooner than all the powerful bits that have ever been invented. Horses that are natural "pullers" should be ridden with light hands and easy bits, in order to prevent fretting as much as possible, otherwise both riders and horses will experience unnecessary annoyance.

HOW TO STOP A BOLTER ACROSS COUNTRY.

If the horse bolt in the open and cannot be pulled up in the manner described, the rider should throw his full weight on either of the reins and bend the

horse's neck. The selection of the rein will depend on local circumstances. This should be done suddenly before the horse realises what the action means, and he should be kept galloping round in a circle a good deal longer than he likes. As soon as he shows symptoms of giving in, the "persuaders" should be applied to his ribs and the horse kept moving until he can be pulled up with the little finger, and he will think twice before he decides to bolt again. When the neck of a horse is bent as described he is bound to go round in a circle, the diameter of which is governed by the angle at which the neck is bent. In this strained position the horse can neither run so fast nor so long. He cannot draw his wind freely with his neck bent, and is absolutely under the control of the rider so long as the latter retains his seat.

THE DANGER OF COLLIDING WITH A CROWD.

We shall here relate an incident that happened with the writer in the Queen's Park, Edinburgh, at the opening of the Industrial Exhibition. The regiment to which he belonged—the Lothians and Berwickshire Yeomanry Cavalry (recently the 19th Imperial Yeomanry on active service), which formed part of the escort to the late Duke of Clarence—was drawn up in line, and the order given to "Return swords." The mare on which the writer was mounted had never previously been drilled, and as the swords went rattling into the scabbards she reared straight

up, took the powerful military bit in her teeth, and bolted straight to the front. A crowd of five or six thousand people occupied the rising ground directly opposite, and realising the imminent danger of rushing into it, every nerve was strained to arrest her mad career, but in vain.

On passing the sergeant-major, straight as an arrow and within a hundred paces of the crowd, he shouted in accents of evident concern, "For heaven's sake, pull the near rein!" His command was instantly acted upon. Both hands were applied to the rein, the mare's neck successfully bent, and round she went in a circle until she was quite blown.

Thus, by the application of this method a serious accident was probably averted, because when a runaway horse comes in violent collision with a crowd of people the danger can hardly be exaggerated. It is important that the neck should be bent suddenly, for if the horse anticipate the intended action he is likely to resist, but when his head is jerked round unawares he is at once at the mercy of his rider, and all attempts to get his head straight are rendered futile by the tightness of the rein, which can be lengthened or shortened by the rider as circumstances demand.

CHAPTER XIV.

REARING.

Rearing is by far the most dangerous habit that a horse can possess, and one of the most difficult to cure. At a former stage it was shown that side reins, too tightly attached, were a frequent cause of rearing; but there are numerous other incentives that tend to make the horse rear, and a very general one is sharp, continuous checking and tugging at his mouth. Great numbers of horses are brought back over in this manner, and when they do it two or three times they are rarely, if ever, to be depended on in future. The least check will be sufficient to bring a horse over, and even at times, by some unusual motion of the rider, he will conceive the idea that he is about to be checked, and will throw himself back over in sheer anticipation. Thus, oft-times the rider is taken unawares, and the result is frequently a serious one. A rider with light hands is not so apt to bring a horse over as one with heavy hands. Some riders can handle a horse so lightly that the pressure on the bit is inappreciable, while, on the other hand, not a few are dependent

on the reins for the maintenance of their seat in the saddle! It is held by some writers that horses never voluntarily throw themselves back over, and there is a good deal of truth in the argument because they are generally pulled over unconsciously by the rider, who becomes excited and loses his presence of mind. At the same time the writer has occasionally seen young colts throw themselves over in play when turned into a field for exercise.

HOW TO CURE A HORSE OF REARING.

Numerous methods have been suggested of curing a rearer, such as smashing bottles between his ears, felling him down with the butt end of a stick, fixing him down with straps, and many others too numerous to mention. None of them, however, will prove of much benefit in a permanent sense. When the horse is felled down, for instance, he is necessarily insensible to the punishment inflicted, and when he regains his feet he is just as likely to rear as ever. A horse may be tied down to the ground to prevent him rearing with a fair amount of success so long as he is stationary; but this method serves no practical purpose because to get any work out of him he must be in motion. It is impossible to fix him to anything else to keep him down. Fixing his head to the girths or to his own pasterns will not prevent him rearing. Such a process not only tends to aggravate the propensity to rear, but is exceedingly dangerous to the horse as well.

The system which shall now be described has a more beneficial influence, only it is a rather difficult equestrian feat to accomplish. There is nothing a horse can do that will tax the rider's energy and presence of mind so much to cope successfully with as rearing. He must be able coolly and quickly to grasp all the circumstances of the situation or he will never be able to conquer a bad rearer. In trying to do so an incompetent rider will greatly endanger his own life, and in all likelihood make the horse worse, as the attempt would be an utter failure if everything were not done precisely at the right time. In fact, by the omission of a single item necessary in the evolution it would be impossible for the rider to accomplish it with success. Timid horsemen, therefore, should never attempt to conquer a horse in this manner but should always transfer him to abler hands.

WHAT TO DO WHEN THE HORSE REARS.

As soon as the horse rears, the rider should keep an easy hold of the reins with the bridle hand, and with the other seize the pommel of the saddle. He should draw his feet nearly out of the irons, leaving only as much of the toes in as will enable him to keep his balance. He must lean well forward on the horse's neck, inclining his head to the right, and the moment the horse is felt on the balance—wavering, as it were, whether to descend one way or the other—the rider should draw the off rein

with a sudden jerk, giving a strong push against the pommel of the saddle so as to throw his body to the right rear of the horse, withdraw his feet from the stirrups, and he will alight at the shoulder of the horse, still retaining his hold of the reins. The moment the rider regains his feet, if he should fall in alighting, he must rush to the horse's head, seize that part of the bridle immediately above the mouth on the right side, and at the same time take both reins close to the mouth in the same grasp. He should place his left knee on the horse's neck close behind his ears, and press the whole weight of his body upon it, turning the horse's nose a few inches from the ground. In this position the rider has complete control of the horse. Holding his nose up and pressing the back of his head down neutralises the power of the horse to an extraordinary degree. As soon as the rider gets the horse securely in this position he should take the double of the whip and draw it smartly five or six times in rapid succession across the horse's shoulder. The horse will struggle violently, but if the rider is possessed of ordinary muscular strength and maintain his position he can easily keep him down. The horse should be kept lying for a quarter of an hour, after which the rider should gradually slacken his hold of the reins and watch his opportunity. The moment the horse turns to rise the rider should throw his leg swiftly across him, and when the horse regains his feet the rider is in the saddle as before, and the horse

never actually realises that the rider has been off him. Nothing conquers a horse so thoroughly as when thrown, the more so when he finds he cannot rise, and that he can be punished without being able in any great degree to resist. This method, then, as will readily be seen, requires great dexterity and readiness of thought to act. Indeed, all the items mentioned as necessary when the horse is hanging in the balance are the work of a moment, and require to be executed simultaneously, because if these measures were brought to bear upon the horse a moment too soon, in all probability the rider would pull him back over on the top of him ; and if applied on the other hand a moment too late, the opportunity would be lost. The rider would almost be sure to fall awkwardly, and before he could collect himself and rush to the head of the horse, the latter would be on his feet again. In all likelihood the horse would gallop triumphantly away, leaving his rider further from conquering him than ever.

RESULTS OF THE SYSTEM.

Some readers may imagine that such a system is dangerous, and so it undoubtedly is if the performer lacks any of the qualifications named as essential. When the rider is possessed of them, however, there is comparatively little real danger when everything is done at the right time with courage and expedition. Almost in all cases this method will prove a complete cure, at least a horse

will rarely in future rise to a sufficient height to cause danger. With kindness and caution he will invariably forget this bad habit so long as he remains in good hands, but if he is put into the hands of a careless and nervous rider he will generally resume his old habit of getting rid of him as long as he lives.

Rearing, like biting—which will be treated subsequently—is a vice which no man can cure for another. There is an unspeakable feeling between the conqueror and the conquered that is absolutely not transferable, and which, by its peculiarly inexplicable nature, cannot possibly be imparted by theory. This mystical union between rider and horse is felt rather than seen, and its general influence is appreciated by all experienced horsemen. When this bond is absent, rider and horse are generally out-of-joint with each other—the former nervous and the latter distrustful—therefore they are continually pulling in opposite directions.

CHAPTER XV.

BAD STABLE HABITS.

Having now dealt with most of the bad habits peculiar to horses when at work, we shall proceed to consider some of the more notorious vices which they practice in the stable.

BITING.

Biting is a bad habit in horses which is generally acquired in the stable by grooms and others teasing them while they are being groomed. Grooms, for what reason is best known to themselves, frequently appear to consider it part of their equine profession to tease horses in this way, and it often happens that if a perfectly quiet horse is put into a groom's hands, in one week he will be tearing and rattling the manger with his teeth, and pawing the floor with his fore feet all the time he is being groomed. It does not generally happen that the individual who teaches the horse to bite is the one who ultimately suffers, but the horse is very likely to take hold of any stranger going up beside him in the stall, if the stranger is not aware of the horse's peculiarity, and

fails to take due precaution. A horse will rarely bite if he has not at some time or another been encouraged to do so, and when he becomes confirmed in this bad habit he is an exceedingly dangerous brute to have anything to do with, because only those who have had the misfortune to be bitten can understand its terribly painful nature, as well as its extremely dangerous consequences. Horses that bite seldom open their jaws in quitting the object they seize, consequently they either cut the part clean out or bruise and mangle it in a horrible manner by their teeth slipping off at the edge.

HOW TO CURE A BITER.

The best way to cure a biter is to take a short flat stick in the hand when going up to him in the stall, and whenever the horse attempts to bite, it should be drawn smartly across his nose once only, and he will instantly jump to the opposite side of the stall. A few smart lessons of this kind will generally be sufficient to cure him. He may afterwards look in a threatening manner, but the least motion of the arm will invariably be sufficient to prevent him repeating it. This is a vice, however, that no man can successfully cure for another. A courageous man can conquer a horse for himself, but nothing he can do will prevent the horse biting others, because if he is a pronounced biter he will try it with every new face he meets. And if people recede from him and appear nervous, he will soon follow up the

advantage he gains and develop the habit to a more dangerous degree, and the older he gets he will generally grow worse.

KICKING IN THE STALL.

Kicking in the stall is a very nasty habit, and it is very frequently the result of over-feeding and idleness. The horse becomes wearied by continuous standing in the stable, and will kick out simply because he has nothing else to do. He may happen to kick further than he intends; his leg may come in violent contact with something that hurts him, and in order to remove it he will sometimes kick straight out for ten or fifteen minutes together, smashing his legs and blemishing his hocks until he quite disfigures himself.

HOW TO CURE A STALL KICKER.

If taken in time a stall-kicker is very simply and quickly cured by hanging a prickly whin bush at each pillar on either side of him, directly opposite his quarters (Fig. 18). This device keeps him in the centre of the stall, and in the course of a fortnight, with plenty of work, he will, as a rule,

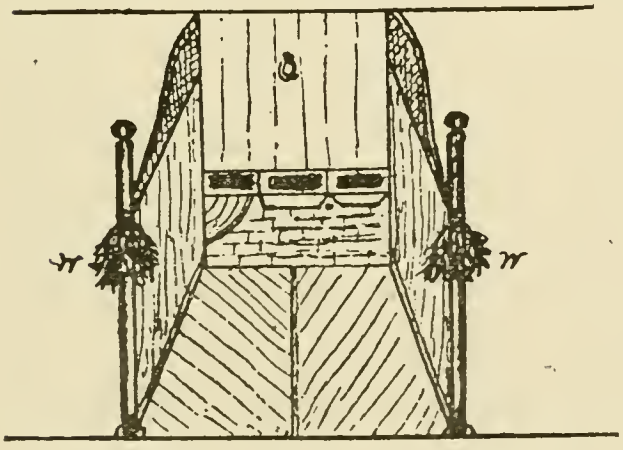


Fig. 18.—W W Whin Bushes.

entirely forget it. On the other hand, if he is allowed to become a confirmed stable kicker before a cure is attempted, the method described above will be of little avail, as he will kick the bushes down as fast as they are put up, therefore, in order to cure him a different system must be tried.

THE USE OF A SACK STUFFED WITH STRAW.

In the case of a pronounced kicker, a common farm sack should be firmly stuffed with straw and suspended from the roof directly over his quarters. The sack should be kept hanging until the horse grows tired of kicking at it, which, generally speaking, will not be very long, for no sooner does he kick the sack away than it swings back again to its original position, and he generally gives up the unequal contest subdued and beaten (Fig. 19). This method does not hurt the horse, and it will prove successful in most cases.

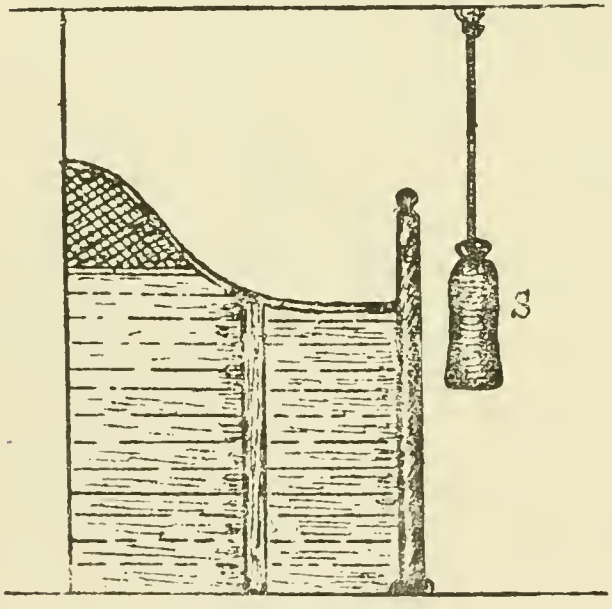


FIG. 19.—S SUSPENDED SACK.

CRIB-BITING AND WIND-SUCKING.

These bad stable habits in horses are very difficult to get rid of, in fact they are practically incurable when horses become confirmed in them. They seize the manger, or any piece of wood that is near them, press the teeth closely against it, and then proceed to suck themselves full of wind. In consequence of this, crib-biters and wind-suckers are generally lean in condition, and present a sickly, unthriven appearance, not that they do not consume sufficient food, but because what they eat appears to do them very little good. While these bad habits cannot be cured they can certainly be prevented. The front of the manger should be very wide and covered with sheet iron, which will prevent horses closing their teeth against it. The best and most simple preventive, however, is to fix a leather strap, about two inches broad, pretty tightly round the neck of the horse immediately behind the ears, which effectually prevents him expanding his neck and seizing the wood in front of him (Fig. 20).

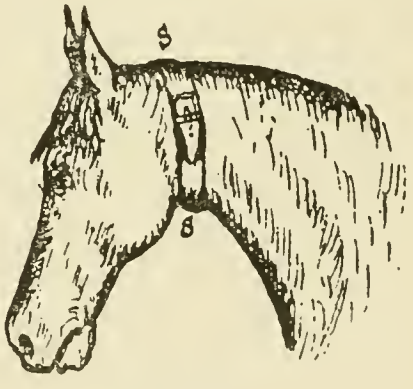


FIG. 20.
S S WIND-SUCKING STRAP.

SHEET TEARING AND HOW TO PREVENT IT.

A "sheet-eater" can be prevented by tying his head close up in the daytime, but then he requires

to be let loose at night, and as the darkness of night is no terror to his extravagant propensity no good purpose is served, for in the morning he will generally have his clothing torn in shreds and trampled among his feet. A good plan for preventing him is to attach a strong leather apron to the headstall immediately behind his jaws, which in all cases will prove an effectual cure (Fig. 21). All his efforts to seize the sheet will be futile, because the leather apron will always intervene when it is properly adjusted.

Fig. 21.
L Leather Apron.

HOW TO PREVENT HORSES PUTTING THEIR FORE LEGS OVER THE COLLAR SHANKS.

Some horses are continually getting their legs over the collar shanks, and not infrequently they get them wound up, throw themselves down, and otherwise damage themselves. A horse that is addicted to this caprice is best prevented by placing a strong pair of "hopples" upon his fore pasterns. The strap between his feet should be sufficiently long to enable him to lie down comfortably, and short enough to prevent him getting his feet high enough to put them over the shank of the halter. After the horse has worn the "hopples" for a month he will generally have forgotten his bad habit, although, if he is permitted to stand much in idleness he will occasionally resume it.

TURNING IN THE STALL.

A horse addicted to this habit should be tied in either corner of the manger in front of him, which at once prevents him getting round. This bad habit, like most others, is generally caused by idleness. The horse gets tired always standing in one position, and naturally turns round to look about him in order to relieve the monotony.

SWINGING IN THE STALL.

Some horses acquire a very peculiar habit of swinging on their fore legs from side to side of the stall, just the same as a confined wolf in his cage at a menagerie swings incessantly from corner to corner. When the horse, like the wolf, once thoroughly acquires this habit he never abandons it, and will swing on till the day of his death if only he can stand upon his legs to do so. Some writers hold that the habit is acquired through some derangement of the digestive organs; others, that it is a nervous disorder arising from shock or excitement; but it is doubtful if it arises from any other cause than utter weariness produced by standing too long in the stable without intervening intervals of change. Confinement is the cause of the incessant pendulum-like movement in the wolf, and on the same reasoning we are inclined to attribute the motion of the horse to the same source. It is impossible to cure a horse of this habit in the stall, and the only way to prevent it is to

turn him into a loose-box if one is available where he can have freedom to roam about in all directions.

HOW TO GO UP TO A HORSE IN A STALL.

No person should go up to a horse in a stall without first warning him of the intention by speaking to him, such as—"Steady, boy!" or "Get over!" A groom should never attempt to go up while the horse is moving across to the other side of the stall, but should always wait until he is perfectly steady, and he will seldom or never kick. The groom should always walk straight up to the horse and avoid dodging suddenly about him, for scarcely anything will impart the idea of nervousness so quickly as this, and unless he is a very quiet horse, "that a child may manage"—to use the popular expression—he may take advantage by letting out suddenly behind just when he is least expected to do so.

PULLING ON THE HALTER AND CASTING IN THE STALL.

When a colt pulls on the halter a rope should be tied across behind him from pillar to pillar; the colt should be severely punished when he leans back upon it, and he will generally discontinue the habit in the course of a few days. Casting in the stall is quite incurable. The only remedy is to turn horses addicted to this habit into a loose-box, where they can roll about in perfect freedom.

CHAPTER XVI.

THE DIFFERENT PACES OF HORSES.

Horses have four distinct paces, viz., walking, trotting, cantering, and galloping, and when they are well trained they should not do more than one of them at a time.

THE COMBINATION OF PACES.

Nothing is more uncomfortable to the rider, and hardly anything looks so bad as a horse walking and trotting, as it were, at the same time. The American trotter may be included in this category, though the high rate of speed at which he travels is extraordinary. There is another peculiar combination of paces—something midway between a trot and a canter—which is most offensive to the feeling and eye of a skilled horseman. It is quite impossible to post gracefully to such a motion as it is too fast and irregular for trotting; nor can the easy swinging position of a well-sustained canter be maintained, because it is too slow and uncertain for cantering, and so, with a badly-trained animal of this kind one must just grind his teeth and endure. This disagreeable motion

is generally caused by pushing horses above their paces. Scarcely anything will accomplish it sooner than by trying to make a horse cover twelve miles an hour when Nature has only fashioned him to cover eight. A horse may be pushed up to his natural paces, but whenever he is pushed beyond them he will break his steps every few yards, the result being, as already mentioned, a disagreeable combination of paces at the same time.

HOW TO RIDE A HORSE AT A WALK.

In walking a horse the rider should sit squarely in the saddle with the feet directly under the knees. The ball of the foot should rest in the stirrup, with the heel a little more sunk than the toe. In ordinary hacking the feet should never be driven home in the stirrups, although, of course, in hunting and similar rough riding a good foothold is essential. The hands should be kept low, which will give the rider greater command over the horse. When the hands are unduly elevated with the thumbs vertical the pressure of the bit comes against the corners of the horse's mouth instead of against

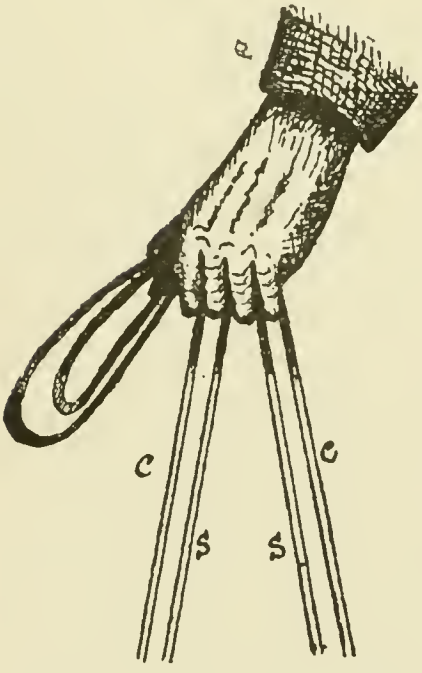


FIG. 22.—HOW TO HOLD DOUBLE REINS.
S S Snaffle Rein.
C C Curb Rein.

his lower jaw, which reduces the rider's control over him. Thus, high hands with the elbows pointing outwards are indicative of bad horsemanship. The following lines aptly describe the rider's position in the saddle :—

> "Keep your head and your heart well up,
> Your hands and your heels keep down,
> Press your knees close to your horse's side,
> And your elbows close to your own."

If using a double bridle, the proper way to hold the reins is to bring the snaffle rein through on either side of the third finger of the left hand, the near curb rein round the outside of the little finger, and the off one through between the first and second fingers (Fig. 22). In this manner the reins can be handled with great facility, and the horse turned by one hand in all directions with consummate ease.

HOW TO RIDE A HORSE AT A TROT.

In trotting, the reins should be shortened a little by simply drawing them up through the fingers. The snaffle and curb-rein can also be regulated to suit the mouths of different horses by shortening or lengthening either, as the necessities of the case require. The rider should rise gracefully to the motion of the horse, not too high, yet sufficiently high to give the horse time to make his paces. At the same time care should be taken to rise to his right paces. There are some men who are unaware that there is such a thing as a right and a wrong

time to rise to the steps of a horse. Illustrative of this, the writer quite recently had the pleasure of meeting an old friend who drilled for eleven consecutive years in a crack regiment of mounted infantry (the "Border Mounted," now disbanded) and who has steered more than one steeplechaser to victory, and yet confessed his entire ignorance of any such peculiarity in the action of the horse. It is a difficult matter to understand, because both sides of the horse being identical the natural inference is that his side action will be equal. This, however, is not so, which can easily be discovered by trying to rise to both steps of the horse. The one is always much rougher than the other, and for grace and ease the rider should always select the smoother one. It is a sure indication of a bad rider when too much daylight is seen between him and the saddle when posting, although this will necessarily be governed in some degree by the smooth or rough action of the horse. A horse with wide front action is generally very rough to ride as the play of his legs causes a corresponding motion all over his shoulders the influence of which affects the rider very directly.

HOW TO RIDE A HORSE AT A CANTER.

When cantering, the rider should sit well back in the saddle, and if the horse lead off with his near foot, which is generally the easier motion, he should take the reins in his left hand ; but if he lead off with the off foot the reins should be taken in the right

hand, and the rider will work in perfect harmony with the horse in both motions. If the opposite of this is done, the rider's motion to the right will take place when the horse's motion inclines to the left, and *vice versâ*. Instead of working harmoniously together, there will be a continuous jolting in opposite directions, which is not only unpleasant to the rider, but is also very uncomfortable to the horse.

HOW TO RIDE A HORSE AT A GALLOP.

In galloping, it is easier both for rider and horse for the former to stand in the stirrups and incline the body well forward, and at this pace it is generally more advantageous to apply both hands to the reins in order to steady the horse and steer him straight. Of course, the position of the body will largely be regulated by the nature of the ground over which the horse is being ridden, and the pace also will necessarily be governed by the same conditions. No careful rider would ascend or descend an unusually steep incline at full gallop, but would regulate the speed to local circumstances in accordance with prudence and humanity. When standing, a horse should never be started into a trot, canter, or gallop without first getting him into motion by walking. It is never necessary in ordinary riding either on the road or across country, although military horses and Polo ponies are generally trained in this manner for their own particular duties, which shall be fully ex-

plained in subsequent chapters. Starting a colt suddenly should always be avoided, because some unusual motion of the rider may cause him to bound forward unexpectedly, and the result may easily be a serious accident.

HOW TO FALL OFF A HORSE WITHOUT GETTING INJURED.

It just requires as much experience to be able to fall off a horse successfully, as it requires to ride one successfully. To the inexperienced this may appear to be a very ridiculous notion, but it is, nevertheless, perfectly true, because no man can ride often to hounds without getting a proportionate number of "spills"; nor will he ever be a good and skilful rider until he can count his tumbles by scores! Coolness and a ready presence of mind are the most essential factors in the scientific art of tumbling off. Of course, we are only treating of cases where the horse falls at a fence, because there is a wide difference between *the necessity of tumbling off*, and the more ignominious position *of being thrown off*. In describing this method it is intended to apply to cases when the rider has a margin of time to think, although, at the same time, the fact is not concealed that there are many cases when, from the sudden and unexpected nature of the fall, no time is available to deliberate. But when there is a moment or two to think "of two evils choose the less," and this will be accomplished by observing *four* things,

which, if the rider is possessed of an active presence of mind, he can do.

First, he must stick to the reins; second, withdraw his feet from the irons; third, coil the body all up in a heap; and fourth, he must always contrive to fall to the side the horse rolls to. In maintaining a firm hold of the reins the horse is kept from running away; in withdrawing the feet from the stirrups the rider saves himself from being dragged if the horse should rise before him; in coiling the body into as small a compass as possible there is far less chance to get injured by the fall; and in falling to the same side that the horse rolls to the rider runs less danger of being kicked when the horse is struggling to regain his feet. Thus, by having regard to these four items and doing them at the right time, for they are all the work of a moment, the rider will nearly always—to use a very forcible expression—get off "scot free." Therefore, to those who wish to be acquainted with the science of the hunting-field, it is just as necessary to be able to fall off as it is to sit on, and the great secret is to do them both properly, in the right place and at the right time.

HOW TO MAKE A COLT FOLLOW THE RIDER.

Probably the best way to teach a colt to follow his rider is to take him into a court thoroughly secluded so that nothing can occur to arrest his attention. A halter should be put upon the colt. When this is

done the rider should take him by the head and turn the colt round towards him, and with a light switch tap him gently behind the fore-legs above the knees, taking care always to keep the head of the colt towards him. In very few lessons he will soon come up to the rider with confidence, when he should be kindly spoken to and much fondled. The colt should be given a few lessons of this kind daily for a week, after which a point with the switch will be sufficient, and he will soon follow the rider about in all directions. When the callosities (warts) of horses are freshly cut a peculiar and pleasing odour is exuded therefrom, by which the Arabs are said to be able to entice horses to follow them anywhere. This statement is made for what it is worth, and the writer would respectfully recommend readers to accept it with the proverbial grain of salt!

HOW TO MAKE A HORSE STOOP TO MOUNT HIM.

When a horse is unusually tall and some difficulty is experienced in mounting him, he can be trained in a very short time to stoop down and submit to be mounted. The rider should take the colt by the head with the left hand, place the right on the top of his shoulder, and with the left foot tap him gently on the back of the fore legs about the fetlocks, and he will move them forward as they are touched. This should be continued till his fore legs are well stretched out in front of him, and as his fore legs are stretched to the front his hind legs will naturally

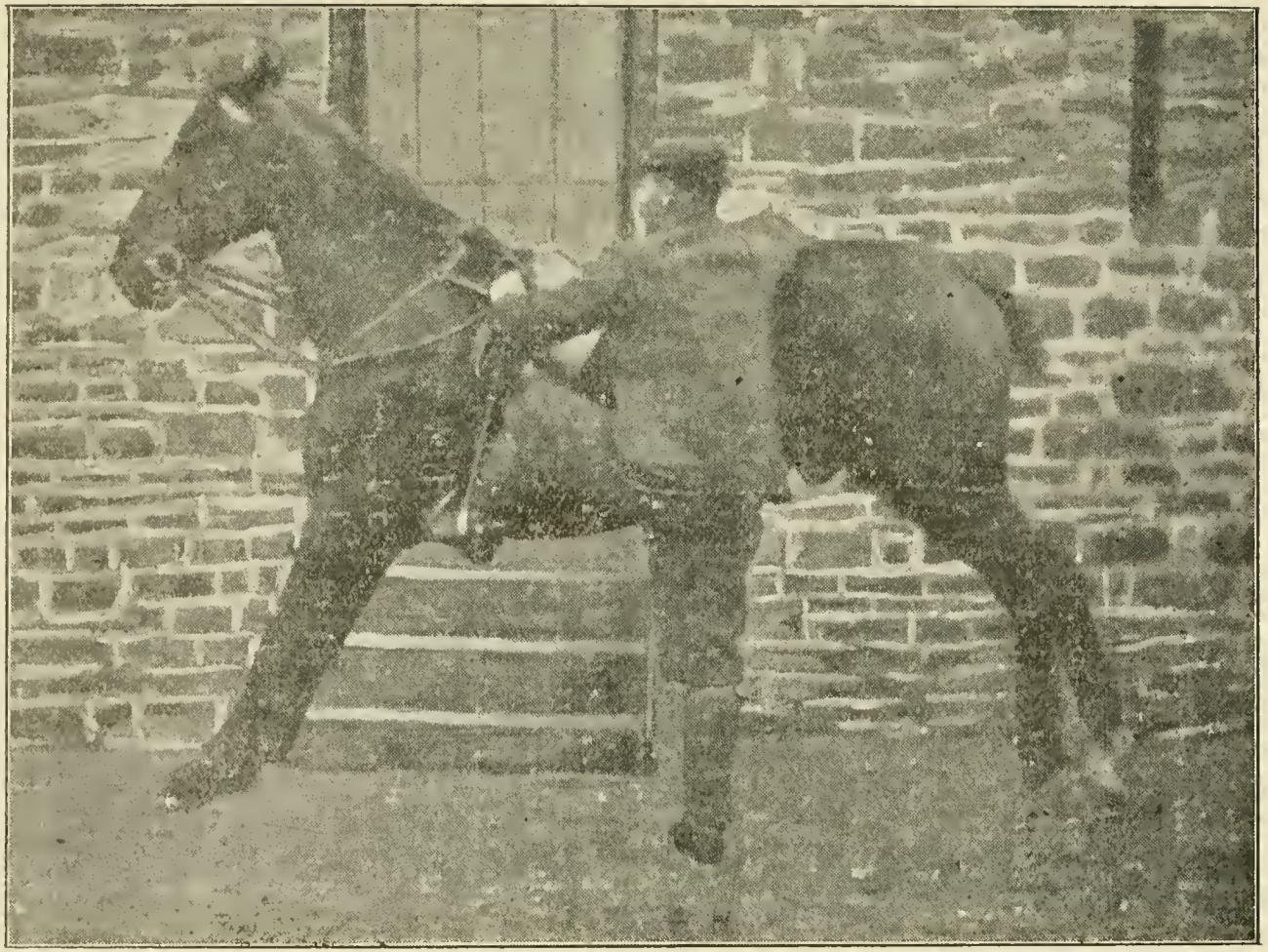


Fig. 23.—How to Make a Horse Stoop to be Mounted,

be stretched to the rear, which brings his back down about a foot lower. Whenever the colt is in the proper position, the rider should caress him, mount at once, and allow him to gather his legs beneath him (Fig. 23). In five or six lessons a slight indication with the foot will serve to make the colt spread himself out at once, and this acquirement in the horse is a decided advantage, because it is often a difficult business to mount a high horse in close-fitting riding breeches, especially if the rider is short or elderly.

HOW TO MAKE A HORSE LIE DOWN.

In teaching a colt to lie down the breaker should take a strong strap and buckle up his off fore leg, and then attach a loose strap to his near fore pastern. He should then place the right hand on the colt's shoulder, and with the left pull the loose strap.

There should be abundance of straw below the colt, as this action will generally bring him upon his knees. The colt should be kept in this position, and in ten or fifteen minutes he will yield, and suffer himself to be pulled over on his near side. In some cases he may struggle violently, but if the breaker maintain his position he will easily subdue him in the time specified.

After ten or a dozen lessons the colt will lie down simply by taking up his foot and pressing upon his withers (Fig. 24). Great care should be taken that nothing occurs to frighten the colt when he is down, or he will be more scrupulous about yielding again.

Fig. 24.—How to Make a Colt Lie Down.

He should always be caressed while he is lying, and also when permitted to rise.

TERMS OF EXPRESSION TO USE TO A HORSE.

In teaching a colt to understand what is said to him, the breaker should always use the same words for the same actions. For example, in starting him, he should say "Get up." When he wants him to stop he should say "Woa." If the colt moves while he is standing, the breaker should never say "Woa" again, as hundreds of men do, when he has already used that word for a different action, but "Steady," instead. In backing him the breaker should say "Back," and so on, each word always being applied to its proper action. If the colt is standing at the near side of the stall, and the breaker wishes to go up at that side, he should say "Get over"; but if he is standing at the right side he should only say "Steady," which is all that is necessary, and *vice versâ* from the other side. It is wonderful how soon a colt will learn to understand the different expressions if method is exercised in their application; but if no regard is paid to this important matter he will get thoroughly confused, and will never be able to understand what they mean. He should be kindly treated and softly spoken to, for it should always be borne in mind that he will never learn anything worth learning through fear. Anything he acquires through the last-named channel will generally develop into vice, and it will require a great deal of patience and time to persuade him to forget it.

CHAPTER XVII.

LADIES' HORSES.

Probably no class of horses varies more in size and breeding than ladies' horses on account of the nature of the work they are required to do. With all deference to their fair riders, there is also a marked difference in their equestrian accomplishments. In no sense do we refer to their social rank, general accomplishments, or personal appearance, from the highest to the most humble aspirant in equestrian science, but only to their ability or inability to ride.

THE DIFFERENCE OF RIDERS.

No one possessed of an artistic eye can fail to appreciate the charming and graceful posture of an accomplished and finished horsewoman, because her light touch of the rein, perfect harmony with the horse, and general easy attitude in the saddle, proclaim at once to the world her scientific and coveted attainments, which are the envy of every lady whose passion for equine enjoyment is in the ascendant.

On the other hand, a lady whose equestrian training has only been empirical is correspondingly easily distinguished. She has no direct feeling of her horse's

mouth. Her motion is out of harmony with his paces, while her position in the saddle is awkward, stiff, and entirely devoid of gracefulness and ease. A lady should sit evenly in the saddle, with her shoulders square to the front. There is often a tendency to unduly elevate the right shoulder which should be carefully avoided. When this is neglected the rider instead of rising gracefully to the paces of the horse in a straight forward direction, moves at an angle the line of which would run from the off rear of the horse to the near front, which is very fatiguing both to rider and horse, to say nothing of the awkward display produced. The weight of the body should be equalised over the back of the colt which will prevent saddle-galls and other injuries (Fig. 25).

THE SUGGESTED CHANGE OF ATTIRE AND POSTURE.

At present, at the beginning of the twentieth century, there is a ridiculous notion abroad suggesting a complete and revolutionary overhaul in the riding costume of ladies, as well as a radical change of their position in the saddle. The idea may have sprung from the influx of bicycles in such numbers, because on the "wheel" the position of both sexes is virtually identical. Or it may be an importation from our cousins on the other side of the Atlantic, who are not generally the last to show the way, either in fashionable attire or in equine matters. It is argued in the interests of health, safety, and comfort that ladies should adopt a masculine position in the

Fig. 25.—Lady Mounted.

saddle and substitute the present riding-habit by "divided skirts"—a ludicrous garment, promising to be an absurd something midway between the ordinary habit and pantalets, or, perhaps, a fantastic combination of both—either of which is sufficiently appropriate for its description. But, although the nineteenth century was characterised by great innovations, it was scarcely sufficiently adoptive to pronounce its approval of this not very æsthetic idea; and these ladies who are most eloquent in their appeals for reformation had better betake themselves to think out a more "rational" method to meet the requirements of their case than this supremely quixotic notion.

THE DIFFERENCE OF RIDING-HABITS AND HATS.

There is nothing smarter than the ordinary modern riding-habit with its latest improvements when it is well cut and perfectly fitted, with the skirt falling gracefully away from the waist and reaching below the ankle, leaving only the heel of the boot exposed. With regard to the plea of safety and comfort suggested in the alteration of position in the saddle, it is probably not generally known that the seat of a lady on horseback is far more secure than most people imagine; and, in reference to the question of health, medical opinion, as it generally is on nice points, is pretty equally divided. The long, ungainly skirt which was worn in the past was both inconvenient and dangerous. Its lower portion was generally all soiled

and mud-bespattered from the splashes of the horse's feet; but with the present habit a lady can hunt almost for an entire day without getting a spot of mud thereon. There is also less risk of the skirt getting entangled in fences and other obstacles which is a very great advantage to ladies. Whilst silk hats are probably more stylish than felt hats, a good deal can be said in advocacy of the latter; they are light and comfortable, and, after all, these are the primary conditions which should be regarded, though in many cases, it is to be feared, they receive only scanty consideration.

THE SIZE OF LADIES' HORSES.

The breeding and height of a lady's horse should be regulated according to the rider's weight and proportions. If of an average weight and height (it would be hazardous to use figures) a horse from fourteen hands three inches to fifteen hands two inches high will generally be suitable if he is thoroughbred; but if he is only three-parts bred a horse of fifteen hands is high enough. The latter at that height will be quite a match to the former as a weight-carrier. He should be in possession of all the points of a well-made hunter, the details of which will be given in a later chapter exclusively devoted to hunters.

HOW TO "MOUTH" A LADY'S HORSE.

In training a colt intended for a lady the side reins should be crossed in front of his chest and drawn

rather tighter than in ordinary cases of breaking. The reason for this is to bring his nose closer to his breast than his forehead. The bridle-hand of a lady, from its elevation caused by her thigh passing over the saddle, is necessarily eight or ten inches higher than that of a gentleman, consequently the nose of the colt must be regulated to a proper position to suit the hand. If this point is neglected the colt will poke out his nose in front of him to such an extent that the pressure of the bit will simply come between the corners of his mouth instead of against his lower jaw. In this position he will permit the bit to be sawn through his mouth from side to side without that ready acquiescence which should always be a strongly marked feature in every lady's horse. His mouth should be carefully made, and to insure its being light and pleasant with both sides tempered alike the side reins should be placed equipollent, and with a plain snaffle with a centre ring his mouth will be made exactly the same all round, and so light and pleasant that he could almost be ridden with a worsted thread.

HOW TO TRAIN HIM TO THE RIDING-HABIT.

The trainer should next attach a lady's skirt, or an old sheet, to his left side; but he should be careful to keep off the King's highway, lest an ambitious policeman aching for promotion serve a summons upon him for female personation!

The skirt, or sheet, should be the same colour as an ordinary habit. The colt should be ridden in this

manner for a few days, gradually lengthening the skirt until it reaches the required position, in order to accustom him to the feeling and appearance of the habit, and in very few lessons he will soon grow familiar with it.

The colt should also be trained to spread himself out for the purpose of being mounted, as already described in a former chapter. When no one is present to assist a lady into the saddle this acquirement is a decided advantage.

THE ADVANTAGE OF A NOSE STRAP.

When the side reins are discontinued a strap should be attached to the nose-band of the bridle, or to a false head-stall under the bridle, which last-named piece of head-gear is an excellent arrangement in a lady's bridle. The strap should pass through the breast-plate ring, then through between the colt's fore legs, and finally fixed to the saddle girths. This strap will tend to steady the colt and prevent him acquiring a disagreeable habit of tossing up his head which is very offensive to a lady. It will take the place of a martingale without checking the mouth of the colt and after

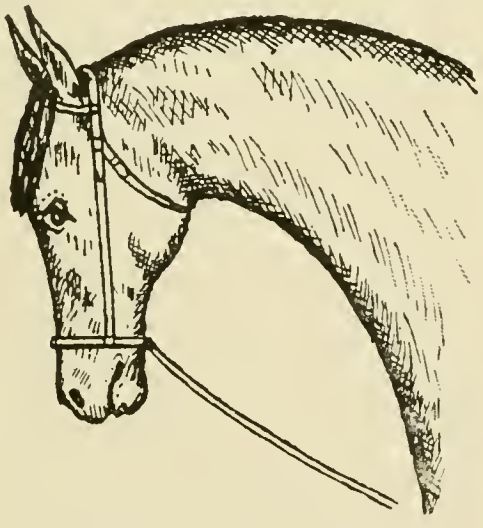


Fig. 26.—The Nose Strap.

being ridden in this manner for a month or two the pose of his head will be permanently fixed when the use of the strap may be discontinued (Fig. 26).

HOW TO TEACH THE COLT TO CANTER.

Meantime the paces of the colt must be attended to. He should be trained to walk, trot, canter, and gallop with perfect ease and freedom, and, as already shown in a former chapter, he should never be allowed to break his steps, nor execute more than one pace at a time. Cantering is the most graceful as well as the most comfortable pace for a lady, and it is, therefore, desirable that the colt should be trained to do it perfectly, or, at least, as nearly perfect as the nature of his action will permit. He should always be trained to lead off with his off fore leg as this action will best suit the majority of ladies, although a skilled horsewoman can soon accustom herself either to right or left action. There are many second and even third-rate riders, however, who could not do so, therefore, to insure harmony between the paces of the colt and the swinging motion of the rider he should always be trained to lead off with his right leg. This one-sided action will necessarily tire him sooner than if he were allowed to change his legs occasionally; but ladies' horses, as a rule, are not intended to undertake long fatiguing journeys, a pleasant and agreeable movement being the chief requirement.

THE COLT SHOULD BE TRAINED TO STEAM.

The colt should be often ridden to railway stations, or to any place where engines are at work in order to familiarise him with the appearance of steam. It is exceedingly awkward and dangerous for a lady when the colt becomes restive at the sight of steam. The best way to train him to overcome his fear is to use every manner of kindness towards him; he should never be punished or coerced on approaching steam, or he will naturally grow worse instead of better. The rider should endeavour always to keep the head of the colt facing the steam, and he will soon get accustomed to its appearance. A great preventive to shying at steam is to have a field adjoining a railway where young colts can be turned into in summer, and in very few weeks they will scarely even raise their heads to look at a train passing quite close to them. (See Chapter III., on Breeding and Rearing.)

THE BEST KIND OF RIDING GEAR.

Perhaps the best bridle for a lady's horse is a light-made double bridle or pelham, with false head-stall attached. The reins should be narrow, flexible, and of good length so that they can be handled with ease and dexterity. A snaffle bridle, or a martingale, should never be seen on a lady's horse, although a French martingale, or "rein-ring," is a good preventive to the horse tossing the reins over his ears. The best saddles can always be procured from leading firms in town. Modern saddles are beautifully made and fitted with all the latest improvements and appliances.

CHAPTER XVIII.

RACING AND RACEHORSES.

Racing is a universal sport which is indulged in more or less by all classes of the community. Into its attractions and evils there is no need here to enter. We shall, however, endeavour to point out the merits of a *beau-ideal* racehorse, and give a few hints on how to manage him.

THE CHIEF POINTS OF A THOROUGHBRED COLT.

The colt should be in possession of a small head, broad between the eyes, clean, open jaws, and a small, tapering muzzle. His eyes should be full, generous, and prominent, showing plenty of fire when the colt is put upon his mettle. His ears should be small, tapering, and inclining towards each other at the tips when erect. His nostrils should be delicate and curved, with broad, expansive cavities, and when distended they should appear almost transparent at the edges. His neck should be long, lean, and planted on a set of oblique shoulders, with good play. He should have a moderately long, straight back, with strong, well-developed, muscular quarters. He should

be deep-chested rather than broad, because if he is very broad in the chest he will never be fast, though he may be able to stay. His fore-legs should be well set on, clean, bony, flat, and free from splints and side-bones, while they should not be too long from the knees to the pasterns. The knees should be flat and fairly large, while the pasterns should be moderately long and elastic, to insure easy springing action. His feet should be well spread and proportionate, well hollowed beneath, and the hoofs tough, sound, and durable. The hind-legs should be well united to the quarters, flat, clean, and hard as whalebone, with strong, symmetrical hocks, and free from curbs and spavins. The forelock, mane, and tail should be soft, silky, and fine, while the tips at the fetlocks should be so delicate as almost to be imperceptible. Curls and waves in the hair are generally suggestive of under-breeding.

No objection should be made to the colour of a colt if he can gallop fast enough and stay the required distance, but a racehorse always looks more furnished with a good blaze of white between the eyes, while a white stocking or two generally lend style to his appearance; but *chacun à son goût.*

THE COLT'S MANAGEMENT.

The thoroughbred colt from his sensitive nervous temperament requires extremely careful and judicious treatment in the way of food, exercise, and training. He can scarcely be given too generous a diet of com-

modities best calculated to strengthen and develop his muscular system, brace his tendons, and generally add to his bone power. If this matter is neglected he will generally evolve into a mean-spirited, ill-thriven horse.

Some breeders keep their colts shamefully lean through pure ignorance of their proper treatment, with the result that they have delicate constitutions and are utterly unfit to make their mark in any special way. Giving colts an insufficient quantity of food, or food of an inferior quality, may appear cheap at the time, but in the end it is very false economy as will be proved by the stunted growth of the colts.

INCIDENT OF A POOR COLT.

We have heard of a celebrated Irishman who went to look at a colt with the object of purchasing him. The colt was very poor and ill-conditioned, and on entering the paddock his owner remarked that he had a number of excellent points about him, to which the Irishman, with characteristic humour, replied:—"Sure sor, it's all points he is together; he's got such moighty projections you could hang yer coat on any av thim!"

EVILS OF RACING COLTS TOO YOUNG.

We shall deviate for a little to say that the majority of colts are raced when they are far too young. There is no doubt that racing a colt at two years old means ruining him almost before he has attained the age of

horsehood. If a hunter is only fit to follow hounds at five or six years of age, how, by the same reasoning, can a thoroughbred colt be supposed to be equal to the severe strain put upon him as a two-year-old? He is made to discharge the laborious work of an adult while he is still a comparative infant. He is raced when his bone formation is little more than in cartilage form, and his tendons and muscles like gelatine—in short, he is driven in the racing-reins when he should only be learning his lessons of being led in the "nursery strings." Thus, when the period proper for racing arrives, he is doing stud work—or, what is worse, he is on the retired list of "broken-down" racers, with a racing record of about one-twentieth the length of his natural ancestral pedigree, so far, at least, as *wins* count.

FEEDING AND TRAINING.

The best kind of food for training purposes is a generous allowance of old potato oats, crushed, and over-year hay of strong bone, clean, dry, and free from trefoil and clover of all kinds. Both hay and oats should be grown upon the strongest clay soils possible. It is an advantage to give the oats crushed, but the hay should be served in its natural state. Care should always be taken that the hay is free from mould and dust, or coughing and bad wind may follow.

The colt should have regular exercise, but it is altogether impossible to lay down a particular set of directions by which to be absolutely guided. The

condition of the colt must be considered; his temperament; the extent of the effort he is required to make, and his exercise regulated accordingly. As a rule he should only be galloped twice a week, and he should never be sent further than the stipulated distance of the race, nor driven to his full racing speed. If these instructions are neglected, and the colt ridden both fast and frequently, too much will be taken out of him, and instead of hardening he will gradually grow poorer.

The slow, daily exercise will tend to develop his bone formation, and the regulated gallops along with his feeding will decrease his tendency to lay on superfluous flesh, while they will brace his tendons and increase and strengthen his whole muscular system.

HOW TO RIDE HIM IN A RACE.

Unless mounted on a high-class colt, only a few degrees below the standard of the good-looking and aristocratic Persimmon, than which no better type of a racehorse probably ever lived in point of substance, fleetness, and breeding, it will generally be found advantageous never to "make the running." It is better to lie in a convenient place on the inside of the course if possible, and every opportunity should be watched to give the colt an advantage by a good start, steady riding, and a wise calculation for a final struggle. Many a race is lost by asking the colt to make his effort at the wrong time (Fig. 27). In pushing a colt at a closely-contested finish, the jockey

should always endeavour to steer him straight, and at the same time clear of the others so as not to collide ;

Fig. 27.—Racehorse Galloping.

and he should rely more on his heels and hands than on his switch. The colt should be worked up by the united and harmonious action of the arms and legs,

and he will be less likely to swerve and stagger than by the partially one-sided action of the switch. If it is discovered that the colt cannot win, he should never be forced to accomplish that which is impossible by punishing him. It is *then* where the barbarity comes in which should always be avoided. Many a hot-headed, impetuous fool will push and punish his mount most unmercifully and unnecessarily, when, at best, he is neither more nor less than a lamentably "bad third." Such a rider—whether gentleman or professional — is utterly unworthy the name of "jockey," and is a discredit to the national and "orthodox silk" which he wears; and if he does not bring the hooting of the spectators down upon his head, it is because *their* sense of courtesy outweighs *his* feelings of humanity. There is an excuse for a rider making a vigorous effort to secure a "second place," because not only is it an honourable position, but in many races the second horse "saves his stake," and sometimes a good deal more.

FLEETNESS AND STAYING POWERS.

It is said that "a beautiful soul never inhabits a beautiful body," and so it is in the case of horses (only these quadrupeds are not credited by orthodox thinkers with the possession of souls, though the late Major Whyte Melville in the famous old hunting song, "The Place where the Old Horse Died," expresses a very beautiful idea in the following lines:—

"There are men both good and wise who hold that in a future state
Dumb creatures we have cherished here below
Shall give us joyous greeting when we pass the Golden Gate;
Is it folly that I hope it may be so?
For never man had friend more enduring to the end,
Truer mate in every turn of time and tide.
Could I think we'd meet again it would lighten half my pain
At the place where the old horse died.")

This knotty problem of ethical mysticism, however, scarcely comes within the range of this work, but to draw the metaphorical parallel, it is very rarely—almost never—that fleetness and staying powers are combined in the same horse *to any marked degree.* If a horse is extraordinarily fast he will not be able to stay very long, and *vice versâ.* It is therefore necessary for owners of large racing studs to keep two classes of horses, or even three, if steeplechasing is included in the catalogue of their engagements. The one class must be fleet for short races, where horses are ridden at full speed from start to post; and the other class of horses must be good stayers, so that they may live to the end of long races.

REQUIREMENTS FOR DIFFERENT RACES.

Of course we are writing of the higher-class events, for there are numerous race-meetings all over the country where any medium horse—or even a proper "screw"—is qualified to run and win, but in fashionable events like "The Derby," "The Two Thousand Guinea Stakes," "The Cambridgeshire," and "The Grand National," horses of entirely different stamp

and stamina are required to compete successfully in the different class races. These are the fundamental points of racing and racehorses, although a great deal more might be written on the subject, but considerations of space forbid detailed discussion.

CHAPTER XIX.

MILITARY HORSES.

Military horses vary much in colour, for we have them of every shade, from the renowned and aristocratic Scots Greys to the beautiful and dashing Queen's Bays, and the sombre and imposing Horse Guards. (It may be noticed, in passing, that the War Office has just issued an order, on the grounds of utility, to discontinue using grey horses in the first-named regiment in future.) But, while there is unlimited diversity in their colour, there is more uniformity in their size and breeding than in most other classes of horses, which, in a great measure, counterbalances the bad effect of their inequality of colour, together with the general accoutrements and uniform of the troopers. They are generally from fourteen hands two inches to sixteen hands one inch high, and very nearly about three-parts bred. Light cavalry horses are generally about fifteen hands two inches, and heavy cavalry horses about fifteen hands three inches, while officers' chargers generally stand from fifteen hands three inches to sixteen hands one inch high. The latter horses are very often thoroughbred, numbers of them being discarded racers and steeplechasers which have proved themselves too slow

for such work. Ordinary troop horses are generally a very moderate class, as the Government regulation price renders anything better impossible. An additional £10 per horse would soon raise the standard of the British cavalry, and, according to the professional opinion of certain critics, the sooner this is done the better it will be. At the same time, it would be a great advantage to breeders if the Government would purchase colts at three and four years old, and establish a system of depôts where they could be trained. Imperial horse farms might also be established in the Colonies with great advantage to the Government in time of war. The small horses used in the Transvaal War, averaging about fourteen hands two inches, answered very well for the rough nature and mode of warfare of that country, but it does not follow that they would be suitable for campaigning in other countries. Generally speaking, British horses stood the work better than Argentine and other horses, therefore, British breeders may find a better market for hunter "misfits" in future.

THE REGULATION LONG SQUARED TAIL.

The chief difference which marks the military charger from the ordinary three-parts bred horse is the unusual length of his tail, which, in accordance with an absurd regulation of the British cavalry, is worn long and cut squarely across, reaching nearly to the hocks; and no horse that is docked—no matter how good looking and suitable he may be—is per-

mitted to "join the Regulars," even if he is only minus an inch of his stern. We have often wondered what this craze for long-squared tails in the Army meant, but have never been able to ascertain the object very clearly, while troopers do not hesitate to condemn it pretty unanimously. If the tail were switched it would perhaps add grace and beauty to the charger, but a long, heavy-squared tail always appears to burden a horse and to give him a peculiarly clumsy appearance, while it covers up his quarters and keeps him less cool. It is also a means of accumulating mud and dirt, which necessarily add to the stable duties of "Mr Thomas Atkins." The long tail is considered more advantageous than the short one as it enables the horse more easily to brush away flies that disturb him, and there is no question that in warm countries where innumerable flies are on the wing in quest of equine blood, it may sometimes prove beneficial. In the British Isles, however, there is no necessity for any such extravagant appendage. It is quite time such a stupid and ridiculous regulation was rescinded, and docked horses introduced into the "Regulars," and let comfort and convenience, instead of a fancied fine effect, be the primary motive in the fashioning of the charger's tail. We have often seen a regiment of auxiliary cavalry, the horses of which were all docked, and in point of quality and substance they would compare favourably with the best mounted regiment in the British Army. Army horses should

never be hog-maned, as the mane can generally be used with advantage in mounting hurriedly ; indeed, the mane of a horse in warfare has often been instrumental in saving the rider from capture, and even from death.

THE TUITION OF A CHARGER.

It is sometimes erroneously supposed that the tuition of a military charger is a most tedious and difficult business, but in reality it is nothing of the kind. As a rule horses are all thoroughly mouthed and broken before they are bought into the Army, and from the daily routine of the drill and the one-sided and limited nature of the work, they very soon acquire naturally all that is required of them. They should be kindly treated and well fed during training, and the trainer should be a man with a patient disposition and a cool head.

WHAT SORT OF A MOUTH HE SHOULD HAVE.

A charger should have a ready, pleasant-working mouth, light enough to acquiesce readily to the touch of the rein, and strong enough to carry the ponderous regulation bit. The regulation decrees that the charger must be constantly ridden on the curb, the reason for which is not very apparent to the eyes of a follower of hounds, but all who have been in the Army will readily understand the advantages of the curb in cavalry movements, both on parade and on the battlefield. The horse is more completely under

the control of his rider, and while wheeling on parade or engaging an enemy in actual warfare he can circle round with great rapidity, move across from all directions, back instantly with alacrity, spring suddenly forward, and close in on the enemy's horse, which ofttimes saves the life of his rider. The rider can regulate these movements to a hairbreadth by his fine feeling of touch on the curb rein of a perfectly-mouthed charger. The horse yields a ready acquiescence to the slightest indication of the rein when ridden on the curb, which would be absolutely impossible with a snaffle bit. If ridden on the snaffle, the charger would raise his muzzle and push his nose forward, which would displace the bit from his lower jaw to the corners of his mouth, and the fine sense of touch between horse and rider would be practically neutralised. The military charger, ridden on the curb and carrying his muzzle within a few inches of his breast, presents a very different appearance from a horse continually pushing his nose forward. His carriage is full of style, and imparts to the on-looker a feeling of courage and determination which is entirely foreign to a horse that is simply ridden on the snaffle, no matter how good looking he may be in other respects.

HOW TO TRAIN HIM TO MOVE AT THE WORD OF COMMAND.

The charger should be taught to move off at any pace whenever the word of command is given, either

at a walk, a trot, or a gallop, and if this important part of his training is attended to, he will soon learn the respective words of command—"Walk!" "Walk, March!" and "Gallop!" The best mode of training him to move off suddenly is to collect him well together while he is standing, and, by the pressure of the legs and feeling of his mouth, impart to him the idea to be on the alert. This feeling can only be imparted to the horse by practice, and it is generally some time before he understands it, much, of course, depending on his temperament and aptitude. At the last sound of the word of command, which can be given by the rider if training him alone, he should close his legs against the horse, and at the same time impel him by a "lift" with the reins, and he will soon learn to bound off at any pace. If he should be inclined to start forward before the word has been given, great care should be taken to steady him down. Nervous, high-tempered horses after a little practice will almost learn to anticipate an order, so that if care is not exercised much harm may be done in this way. The least motion on the part of the rider may cause a nervous horse to bound forward in the most unexpected manner, thus discretion must be exercised in regulating this movement according to circumstances and the temperament of the horse.

HOW TO TEACH HIM TO REIN BACK.

The horse must also be taught to rein back freely as the flanks of a troop or column of troops often get out of line, and in teaching him the rider should keep the bridle-hand low down on the saddle, so that when pulling the horse it will not cause him to throw up his head violently. If he should be somewhat obdurate at first, the feeling of his mouth should be altered from a steady, level pressure to a continuous motion in rapid succession from side to side, but so slight as almost to be imperceptible, and he will invariably obey at once. The rider should always watch the right opportunity to give the horse his head slightly before he has arrived at exactly the desired position or he may be pulled too far, which will necessitate his being moved forward again. This point should also be observed in "dressing up" into line, because it is always more easy to extend the movement, if necessary, than to reverse it. This is a matter, however, for which the rider is alone responsible, and if he is possessed of a good eye and light hands he will soon learn to calculate his distance with perfect exactitude.

HE MUST BE TRAINED TO STOP SUDDENLY.

It is very necessary that the cavalry horse should be trained to stop suddenly at all his paces. When going at a hand-gallop he should be taught to draw himself up on his own length to a dead halt. This is

accomplished by keeping the bridle-hand well down on the front of the saddle and pulling him steadily up, or, if his mouth is unduly hard, it is preferable to use both hands in the operation until the horse become more accustomed to the work he is required to do. After he has been drawn up gently in this manner for a few days, the suddenness of stopping him must be gradually increased until he can be pulled up smartly by the bridle-hand alone. Special care must always be taken, however, never to be too much in a hurry, because if the horse has an unusually delicate mouth, and violent pressure applied, he may easily be pulled back over on the top of the rider ; and whilst it is dangerous to the rider, the horse at the same time acquires a bad habit which any trivial check in future may cause him to repeat. The rider should always make much of the horse when he accomplishes his work well, and he will soon learn to stick his feet in the ground and draw himself up on the prescribed eight feet without a heavy pull at his mouth at all, simply by an indication from the bridle-hand and catching him well together with the legs to collect him.

HE SHOULD BE TRAINED TO MOVE SQUARELY ACROSS FROM EITHER SIDE.

Another very essential branch of his training is to teach him to move squarely across either to right or left. In training him to pass to the right, the rider should draw slightly on the near rein, bending

the horse's neck a few inches to the left from the shoulder, and at the same time close the left leg against his side, and *vice versâ* in passing to the left. The horse should not be hurried too much at first, until he begin to understand the work a little. In forcing him too much he is apt to trample himself, or he may trip up and pull himself down, and a nasty accident may occur which may lame both the horse and the rider. After a few careful lessons, given with patience and kindness, he will soon plait his legs over each other and move across as swiftly and gracefully as an old seasoned charger.

HOW TO HANDLE HIM WHEN WHEELING.

Similar directions will be applicable in wheeling, whether in "Troops" or in "Fours." At the word "Left wheel," or "Left about wheel," the horse's head should be slightly inclined to the right, and the leg closed against his side, and *vice versâ* in wheeling to the right. When this matter is attended to, crushing on the pivot and centre of the troop is avoided, as each horse comes round upon his own ground with much greater steadiness, and only those who have had the fortune (or, perhaps, misfortune) to have ridden in "the ranks" can understand and duly appreciate a horse, or troop of horses, that are well trained in this particular part of their business. When two or three horses in a troop come rushing round all in a piece—a kind of broadside on—the knees of some of the troopers will suffer in conse-

quence by the violent collision with carbine buckets on the one side and sword scabbards on the other. Whether the recent abandonment of swords is an advantage, or otherwise, remains to be seen ; their utility was never really put to the test in the Transvaal War owing to the wary Boers invariably keeping at a respectful distance from them.

INCIDENT OF CRUSHING.

In a smart regiment of auxiliary cavalry, in which the writer drilled for a number of years, a trooper, who was more to be congratulated on his individual swellish appearance than on the excellence of his horsemanship, had suffered in a similar manner on several occasions, and to avoid it he coolly withdrew to the rear at each successive wheel. This was extremely awkward for the other troopers, who had always to move off to right and left to make room for him coming up again, and to prevent him carrying this out any longer they arranged amongst themselves to close in upon him from either side at the first wheel on a given day. The day came, and so did the wheel. The trooper endeavoured to get back by his usual tactics and partially succeeded, but not before he was cleverly caught on either side by half-a-dozen mischievous troopers. When the troopers moved off him again, he was left in a ludicrous plight, his pants being literally torn to pieces by the impact.

HOW TO TRAIN HIM TO STAND THE SWORD EXERCISE.

Another vital requirement in the charger is to stand the use of the sword. In training him extreme caution must be exercised not to strike him with the blade, or he may get a fright that it may take the rider some considerable time and trouble to persuade the horse to forget. Cuts "Four" on the right and "Three" and "Four" on the left against infantry are the ones most likely to come in collision with the head and ears of the horse in the sword exercise. In order to guard against this danger the rider must lean well over on either side, so as to throw his body well clear of the horse, which will carry his sword-arm further over, and in a great measure prevent actual contact. It is better at first to teach him with a stick in preference to the sword. The horse should be frequently fondled and kindly spoken to while he learns to stand steady and motionless, with a light, almost imperceptible feeling of the rider's hand on the rein, and the stick should be moved over and about him in all directions. If he should start at the unexpected whirr of the stick through the air as its velocity is increased, the rider should always stop until he is steady again, soothing him the while. In no circumstances must he even hint at punishing him, because if the rider lose his temper the horse will lose his, and a conflict may probably ensue which will frighten the one and exhaust the other. There-

fore, whenever the temper (sometimes an awful element in nature to control) is found kindling within the rider, no time should be lost, for every moment is precious then, in putting the horse in the stable, and he should let him remain there until his wonted equilibrium is regained.

HOW TO MAKE HIM STAND WHEN MOUNTING AND DISMOUNTING.

The charger should be trained to stand perfectly steady when being mounted and dismounted. This is a qualification so essential in the war-horse that its importance can scarcely be exaggerated. Many valuable lives have been sacrificed on the field of battle through restive and badly-broken horses. The horse will soon acquire the habit of standing steady if care is taken never to put him in motion until the rider is properly mounted, and never dismounted until he is perfectly steady. A number of men, under the mistaken idea that it is clever, will vault into the saddle and out of it again without ever halting the horse at all. In running one motion into another in this manner the horse obtains a very confused idea of his duties, and he will scarcely ever develop into a steady and reliable charger. He has no definite conception of things, and when he may be wanted to move off he may stand still, and *vice versâ*. This kind of horse is a very dangerous animal to those who do not understand the peculiarities that have been imported into his training by some

hot-headed, ignorant trainer, and for whose half-done work other men often have to suffer.

HOW TO TRAIN HIM TO BE STEADY IN THE RANKS AND TO STAND FIRE.

Scarcely anything looks worse in a regiment than a horse that is continually shifting about. It is impossible to maintain a good line with a horse addicted to this habit, therefore the rider should endeavour to keep him partially collected when drawn up in line, unless the command is to "Sit at ease"—"Sit easy"—when the feeling over him can be relaxed, and the rider should always make much of him by patting him gently on the neck with the right hand. It is necessary that cavalry horses should stand perfectly quiet under fire. This part of their tuition should be given with great care. The trainer should always have an attendant along with him, and the first lesson should be given in a large enclosure. The trainer should hold the horse by a rein about twelve feet long, whilst the attendant fires off light charges of powder from a small pistol at a considerable distance from the horse. If he is punished at this stage, he will naturally conceive the idea that the fire is intended to firighten and hurt him, and will grow more excited as it proceeds. The trainer should always wait until the horse is perfectly steady, and then proceed with the instructions as described. This training should be continued for several days, when he should be taken outside and the same lessons

repeated. The chargers of officers should be specially trained in this branch of their work, and should be made to stand perfectly steady during firing, either mounted or dismounted. Pistols should frequently be fired from their backs, because if an officer get into a tight corner at outpost work and his horse become restive under fire, he will defend himself at great disadvantage, and may sacrifice his life in consequence. With care and discretion it is amazing how soon a horse will stand fire if his temper is reasonably good. The necessity of horses remaining steady under fire was frequently demonstrated during the recent South African war. When horses that are left in the hands of a few troopers behind the firing line stampede at the sound of rifle fire, it generally spells disaster to their riders, because they are easily surrounded, especially if opposed by mounted troops, therefore no part of a horse's training is more important than this. Horses should also be familiarised with music, as no regiment is complete without its band, but the majority of horses, although somewhat nervous at first, very soon become exceedingly fond of music, and will prick their ears in appreciation of the inspiriting strains.

HOW TO MANAGE FOUR HORSES.

At shooting practice, when each three troopers dismount and every fourth trooper takes charge of the four horses, and the order is given to march, the rider must, so to speak, feel and collect, not

only the horse he is riding (which is in the centre with one horse on one side of him and two on the other), but also the other horses. At the word "March," he must by a general continuous movement elongate his power and feeling over them collectively, and so get them all in motion at the same time. If he neglect this important matter the horse he is riding may advance, leaving the others standing, and while he is reining him back to start them, in all probability they will move forward, and they will thus be at continual cross-purposes. The rider should work both arms and legs, and if possible get the horses furthest from him in motion slightly before starting his own. This can be done by giving his horse a slight touch with the spurs as soon as a general movement is indicated in the led horses. In a conflict caused by bad starting some of the horses may break away and entail great inconvenience in securing them, in consequence of which the trooper might get a sharp reproof from his captain, which is rather humiliating in the presence of others. The necessity of expedition in this important work was fully demonstrated in the Transvaal War. It is applicable to ordinary cavalry as well as to mounted infantry, and the success of an attack or a retreat largely depends on the men who are left behind the firing line in charge of the horses. In future it is possible that mounted troops composing flying columns may be furnished with led horses in order to increase their mobility when on active service.

The extraordinary mobility of the Boers is explained by each man having two or more horses at his disposal. By these tactics the Boers have been described by General Sir Evelyn Wood as "the best mounted infantry in the world."

HOW TO TRAIN HIM TO MILITARY SPORTS.

In training a horse for military sports, such as "Heads and posts" and the "Victoria Cross," he should be trained to do them at a steady canter, while he should be made to yield easily to the rein, stop quickly, and when halted to stand perfectly steady until asked to go, either mounted or dismounted. In the case of "Tent-pegging," "Tilting at the ring," and "Lemon-cutting," the horse cannot be trained to go too fast at them, because the faster he goes he will naturally go the straighter, and speed and straightness are the fundamental requirements, especially in regard to "Tent-pegging." As "Tent-pegging" is now a very fashionable game for cavalry —regulars and auxiliaries alike—we shall give a few practical instructions in the art. To become expert at this game the rider can scarcely bend too low over the shoulder of his horse, carrying the lance fairly on the balance, with his eyes firmly fixed on the peg. The point of the lance should be directed straight for the centre of the peg an inch above the ground, and the pace of the horse will lift it with perfect ease eight times out of ten. We have frequently registered this score with the greatest

ease and confidence. Some men make a dart at the peg when about a couple of yards from it, with the invariable result that the lance passes clean over it, or knocks it over by merely grazing it. This is the great secret of "Tent-pegging." The rider should never make a point at the peg, but should leave the steadiness of his arm and eye, along with the speed of his horse to accomplish it, and proficiency in the art will soon be attained. There is also a great deal of art in capsizing the lance so as to retain the peg when it is struck. The lance should be loosely held in the hand, and, the instant the peg is hit, the rider should let the butt end of the lance swing up over the right shoulder until the peg leave the ground, then, by a scientific turn of the arm, he should swing the point of the lance to the front, raising it till it reaches the elevation of the head, and the peg is secured.

HINTS ON FENCING.

It is quite impossible to lay down to the rider a definite set of rules in fencing as so much depends on the position and science of his antagonist and the training of his mount. It is generally wise, if possible, not to force the fight. The rider should endeavour, by a series of skilfully-delivered feints, to persuade his opponent to show his hand and take the initiative. He should also press his horse upon him and discover the training and activity of his opponent's horse. This can be done by using the heels

and closing in sharply behind his bridle-arm. The rider should keep a sharp look-out, sitting well back in the saddle, with his feet well under the knees. His guards should be kept well forward, and every opportunity embraced to place his antagonist *hors de combat.* Should the man who is pitted against him prove more than a match, he should always retire from the contest with a good grace, because it is generally indicative of a hot head and an unsteady arm to complain of the weapon or the result of the tussle. A horse with a hard mouth and slow at wheeling is of no use for fencing at all. In this game the horse plays as prominent a part as his rider, and no matter how expert a man may be in the art of fencing, he will never distinguish himself when badly mounted.

THE ADVANTAGE OF KINDNESS.

These are the chief qualifications of a well-trained charger, and the best methods of accomplishing them; and if every man who trains chargers will only practise that uniform kindness and patience, which are absolutely essential in their attainment, the results collectively will be a splendid success, the influence of which will make itself apparent to the eyes of the world, and add glory and honour to the already glorious and honourable achievements of our distinguished and illustrious cavalry—regulars and auxiliaries alike—which are the just pride of every patriotic heart in the British Empire, and the jealous envy of every foreign Power.

CHAPTER XX.

POLO AND POLO PONIES.

Polo is a game which is gradually gaining ground in this country. There are many classes of Polo, but so long as the players are equally matched the sport may be as interesting amongst second and third-class as it is amongst first-class players.

ORIGIN OF THE GAME.

Polo, like Tent-pegging, is an Indian importation, and was introduced to this country by the officers of cavalry regiments who had previously been stationed in India. In fact, it was first played in this country by the officers of the 10th Hussars on their return from service in India in 1872. The game seems to have originated in certain parts of India somewhere between 1850 and 1860, though no very definite or reliable record of the place and date can be found. The game, in its general aspect, appears very much like "Shinty"—a rough-and-ready game with which every schoolboy is familiar—with the primary difference, however, that while "Shinty" is played on foot, Polo is played on horseback.

Ponies used for the game must not exceed fourteen-and-a-half hands high, while there is no limit to their size below that standard. The steady increase in the value of ponies suitably adapted for the game is a distinct indication of its growing popularity, as high as 750 guineas having been given for a well-trained pony, and as it is almost sure ultimately to become one of the recognised standard games of the country—in more than a military sense—we have been induced to devote a chapter to the selection and training of Polo ponies, which may prove of some benefit to those who go in for the amusement.

CHIEF POINTS OF A POLO PONY.

First, then, in a Polo pony, we require as far as possible to combine fleetness and strength—fleetness for hurrying quickly up to catch the ball, and strength to be able to stave off the rough jostling of the opposing ponies in the game. In selecting a pony for Polo, he should be formed as like a horse as possible, while he should be sound, good-tempered, active, and durable. His head should be small, with prominent eyes and well-set-on ears, while his neck should be moderately long and flexible without being weak. His back should be straight and short rather than long, while his shoulders should be oblique and his withers high, so that he may carry the saddle in a good position. His ribs should be well sprung, with good couplings to ensure his staying powers,

while his quarters should be long, broad, and muscular to guarantee both strength and speed. The hind legs of the pony must be well underneath him, which will give him greater power of propulsion, and at the same time improve the smoothness of his action. Particular attention should be given to his legs and feet to see that they are strongly moulded and free from all the various diseases peculiar to them, for the rough jostling work of Polo may soon develop even the slightest flaw or weakness in the legs of a pony to a most alarming extent. It is very essential that he should be possessed of a quiet temper, for a struggling, pulling, and excitable animal is of no use for Polo at all.

The chief difficulty in breeding Polo ponies is the absence, so far, of a uniform type by which to be guided. Probably the best sire for foundation stock is a small thoroughbred, or Arab, and the dam may be chosen from Forest or Moorland ponies. This blend for the production of Polo ponies is recommended by no less an authority than Sir Walter Gilbey, Bart., in his admirable article entitled "Breeding Polo Ponies" in the *Live Stock Journal Almanac* for 1900. An ideal Polo pony must be a kind of miniature hunter, with as much blood as possible, and capable of carrying from twelve to fourteen stones, and with a limit of fourteen hands two inches in height, this class of animal is difficult to breed. The society formed for the promotion of the breed, however, is doing excellent work, and there are fair

indications that in the course of a decade a definite breed-type will be permanently established.

There is reason to fear that the height-limit of ponies to fourteen-and-a-half hands is occasionally a disadvantage, because it necessarily excludes players who ride fifteen stones and over from participating in the amusement. Were the standard increased to fifteen hands this difficulty would at once be removed, and it is unlikely that the quality of the sport would decrease thereby. The registration of ponies at four years of age is absurd as it is well known that they grow long after that period ; many ponies may be seen playing any day which are well over the specified size. The registration of ponies at four years old, for one year only, is an improvement, but to render the rule impossible of infringement ponies should be registered every year from four years of age to seven.

The question is often debated whether Polo ponies should be hog-maned and docked. It is contended that the mane gets in the way of the rider's bridle-hand and thus interferes with his freedom of action. This can be easily understood in the case of a long flowing mane, but with an ordinary short, well-pulled mane it does not appear as if it could interfere with the action of the rider to any appreciable extent.

In the matter of docking it is argued by some experts that an undocked pony can wheel more rapidly than a docked one. His stern, it is held, acts as a sort of steering apparatus by which the

movement of the body is more easily controlled. This is true in principle but it is not always borne out in practice. If the doubling capacity of a hare, which may be compared to a docked pony, and the doubling capacity of a greyhound, which may be compared to an undocked one, are considered, it may possibly be conceded that the tail, in wheeling, plays a less prominent part than it is generally credited with. From this reasoning, therefore, the bending capacity of a Polo pony is more likely to be governed by natural agility and training than by the particular dimensions of his tail.

HOW TO TRAIN A POLO PONY.

Like all the other tuition for the perfecting of different duties in the horse, the tuition for Polo must be largely imbued with kindness and patience. No man, whatever his nationality, position, or profession may be, will ever train a pony to become expert at Polo by abusing and coercing him into doing what is required of him, nor will the rider ever become proficient in the art if he does not possess the necessary patience to train his mount. Such a man, if his purse-strings will stretch far enough, had better purchase a seasoned, ready-made pony which could carry him through the difficult and intricate windings of the work of "Flying man" or the equally responsible position of "Back." The best system of training a pony is to ride him very carefully for some considerable time, taking extreme

care to make his mouth as pleasant and tractable as possible, so that at the least indication of the hand he will on all occasions yield a ready acquiescence to the bit. The reins should be placed upon him in the same manner as described in a former chapter in the case of "mouthing" ladies' horses, so as to produce exactly the same feeling all over his mouth, because if his mouth is permitted to become harder at one side than the other he will never win the distinction of being considered a first-class wheeler. At the same time the rider of such an animal will be very heavily handicapped in the game. He may often fail to score entirely by the imperfection in the "mouthing" of his mount.

THE CHIEF SECRET IN TRAINING THE PONY.

The great secret of success in training the pony is to get him, as it were, to take an interest in his work. The trainer must persuade him by kind treatment to fall in love with the sport. He must coax but never coerce him; he must be firm but never abusive. The pony must not get a lesson of too long duration at one time, nor should he be ridden too violently. Method must always be exercised in his instruction, and whenever he accomplishes any particular part of his training well the rider should never fail to caress him and speak encouragingly to him. After a little the pony acquires the idea that he is pleasing his rider when he is rewarded by caresses and kind words. This will encourage him

in his work, and, if possessed of a good temper, he will generally become as passionately fond of the sport as his rider. A pony, carefully trained in this way, will, with a judicious rider, prove more than a match for most players.

BEST PLACE IN WHICH TO TRAIN HIM.

The best place for instructing the pony in the elementary movements of the game is a riding school of fairly large dimensions, but if this is unavailable a small park in a quiet place will serve the purpose. Like all other branches of training in horses, his first course of instruction in Polo should be given in private. In perfect seclusion his undivided attention is engaged, and he will understand with much greater aptitude than when distracted by the appearance of other riders and ponies, or even with any slight object whose presence may occasionally disturb him. As already stated, his mouth must be made as nearly perfect as possible. He must be taught to yield at once to the slightest touch of the rein in all directions. A pony with a badly-broken mouth will bother his own and other riders very seriously in the game.

WHAT "LIFTING" THE PONY MEANS.

A very important branch of his work is to spring at once into a gallop from a standing posture. This is best accomplished by taking hold of the pony all over, so to speak, closing the legs upon him, feeling

his mouth, and at the moment he is required to spring forward he must be "lifted" collectively with the arms and legs, and he will soon learn to bound off like a rocket. Of course "lifting" him, in the ordinary sense of the word, is a mechanical impossibility. It is a technical term in equestrian science, but the metaphor has a certain peculiar force about it in condensing the rider's action upon the pony, the outcome of which it truly and forcibly expresses. At the same time, no man can appreciate and fully comprehend the importance of this extraordinary impelling power by theory, however explicitly elucidated, for practice, and practice only, is the available avenue through which this wonderful piece of equine science can be acquired, understood, and perfected.

HOW TO TRAIN HIM TO STOP SUDDENLY.

Another special portion of his work is to stop suddenly when at full gallop, and this is best managed by collecting the pony well together with the legs and bearing heavily upon the reins, taking care at first not to pull too abruptly until he grow accustomed to the action, or he may very easily be pulled over on the top of the rider, which is the reverse of pleasant, to say nothing of the dangers attending it. In ten or a dozen lessons he will draw himself up almost upon his own ground from a full gallop to a dead halt. Taking into consideration the rough nature of the work of Polo, it is an excellent plan

to wear "boots" on the forelegs of ponies as they are frequently instrumental in preventing accidents from blows, etc.

HOW TO TRAIN HIM TO WHEEL.

The pony must be trained to turn suddenly from right to left and *vice versâ*, upon his own ground. In wheeling him to the left, his head should be inclined to the right and the left leg closed against his side, and *vice versâ* in wheeling to the right. In a very short time he will learn to turn round with great rapidity, and a good wheeler in Polo is a decided advantage to the rider. After he has been thoroughly educated to move quickly and gracefully in all directions, the rider should get a Polo-stick and gradually accustom him to the feeling of carrying it.

HOW TO TRAIN HIM TO THE POLO STICK.

The rider must begin by gently swinging the stick over and about the pony in all directions, and gradually increase the velocity as he proceeds. He must be careful not to strike him, or his nerves may become excited, which it will take the rider some time again to calm. The body should be bent and twisted over the pony in every conceivable manner, and when playing proper begins he will understand what the unnatural swinging means, and will not mind it.

HOW TO TRAIN HIM TO THE BALL.

As soon as the pony is familiar with the Polo-stick the trainer should take a ball and hold it to the pony's nose so that he may smell it, but the rider must be careful to avoid forcing it unduly upon him at first. He may appear shy a little, and may snort and run backward, but if patience is exercised and the pony patted and spoken to encouragingly, he will soon smell it all over, and if dropped on the ground in front of him he will often attempt to seize it with his teeth. This is an excellent subsidiary action, because in doing so the ball will generally roll a little away from him, and if left to himself his curiosity will frequently persuade him to follow it up. This may be continued until he is quite at home with it, when the rider should begin to push the ball gently about, and induce the pony, if possible, to follow it partially of his own accord, which can be materially accelerated by inclining the ball always in a favourable direction. The force should be increased as the pony becomes familiar with the work. The trainer should get someone to stand well back from the pony and throw the ball towards him. This should be done very gradually at first, because if done too hurriedly he may shy off broadside-wise, and will naturally regard the ball with greater misgivings. As soon as the pony realises that it will do him no harm, the speed of the ball may be increased, and the distance from which it

is thrown correspondingly lessened, and if care and caution are used in conjunction with kindness, he will, in a remarkably short space of time, learn all the different duties of Polo, much, of course, depending on his temper and docility, together with the patience, kindness, and general horsemanship of his trainer.

HOW TO RIDE HIM IN THE GAME.

After the pony is fairly initiated in his work he may be ridden in the game amongst other ponies, but great caution must be exercised to steer clear of a collision. The rider should avoid, as far as possible, all unnecessary jostling, because the pony may get a fright at first, and it would be some considerable time before his confidence was again restored. It is an acknowledged fact that he may very simply learn something in five minutes of rough, jostling work that it would take a trifle more than five weeks to unlearn, therefore, on all occasions unnecessary jostling should be avoided with a raw pony in Polo. The trainer should never lose his temper while training the pony. If he does it will be advantageous to discontinue the instruction until his customary equanimity is regained, because if the pony is punished it will spoil him by breaking his temper, and as a natural consequence he will resist. A contest for victory may probably ensue, and in all likelihood the pony will win. The trainer must be patient and persevering. He should caress the pony

ungrudgingly, for *omnia vincit amor*, and for the time and kindness expended in training him he will be amply rewarded by the perfect performance of his intricate Polo duties.

Bending and jumping races at shows might be more frequent throughout the country, which would tend greatly to popularise the breed of Polo ponies, and at the same time accelerate a definite breed-type as a standard of production.

GENERAL REMARKS ON POLO.

In writing this chapter on Polo ponies, criticism of the game—either favourable or adverse—has been studiously avoided. The chapter has been entirely confined to ponies with a view to helping those whose duty it may be to purchase and train them, and if the directions which are given are faithfully followed there will be very little difficulty experienced in training them to discharge satisfactorily the various and intricate duties of Polo.

CHAPTER XXI.

CARRIAGE HORSES.

Carriage horses are generally very much in demand, and as a rule bring fairly remunerative prices from the fact that a far greater percentage of them are employed than any other class of higher bred horses in this country; and of all the different classes, from the racehorse to the heavy horse, and from the heavy horse to the Shetland pony, perhaps there is no class more generally useful, or one on which the public more largely depends notwithstanding the great development in motor locomotion.

It must be admitted that motoring is rapidly increasing, but no motor-car, however expensively got up, is comparable to the dashing appearance of a carriage drawn by a pair of handsome well-matched horses. Since it became law to have motor-cars registered and numbered it is gratifying to know that correspondingly few accidents have been recorded, and that a more sympathetic spirit has been fostered between the drivers of horses and the drivers of motors; each class is becoming more courteous to the other, the results of which are very appreciable.

DIFFERENT KINDS OF CARRIAGE HORSES.

There is as much variety in their breeding as there is in their size and colour. There is the ordinary half-bred, the three-parts-bred, and the thoroughbred horse doing carriage work regularly every day in the year. There is a wide gap between the half-bred team discharging the rough jobbing work of a posting establishment, or, what may be still worse, the monotonous humdrum of city tramways, and the thoroughbred team dashing pleasantly along in a nobleman's carriage. Electricity is rapidly superseding horses for tram work in towns and the sooner it is accomplished the better it will be for the poor horses. Carriage horses vary in height from fourteen to sixteen-and-a-half hands high, and even more, and there is simply no limit to their colour whatever from jet black to pure white, and even piebald and skewbald.

COLOUR AND MARKINGS.

To draw a model pair of carriage horses from such diversity of colours, the selection would probably fall on a pair of chesnuts or bays with good action, three-parts-bred, fifteen-and-a-half hands high, white stars in their foreheads, with white stockings reaching a few inches above their hind pastern joints, and their manes lying from the centre to the outside. Colour and markings are matters of taste, yet there is a fashionable prejudice existing amongst those

whose purse-strings can afford to exercise it against white markings in carriage horses in every shape and form. Nothing will do but the orthodox "four black points," and sooner than have a horse with a spot of white upon him when one is required to match another, such faddists will put another horse alongside of him of a different colour altogether. Such a piece of procedure is carrying a stupid prejudice to a ridiculous extent, because a chesnut and black in the same team, for example, produce something like the same effect as a yellow glove and a black one on the hands of the same individual. Horses of whatever colour having a few grey hairs through them, with light-coloured muzzles ("mealy-mouthed," as they are popularly termed) are generally hardy in constitution and are consequently good wearers. These horses are quite distinct from roans, though little can be urged against the latter colour when the shade is fairly dark. No turn-out, however brilliant the equipment, has a good appearance when the horses are of different colours, while a well-matched pair in colour, although of infinitely less intrinsic value, will surpass the other in general appearance every day of the week. The question of colour, however, will be more exhaustively considered in a separate chapter.

THE PARTICULAR PACE TO IMPROVE.

Carriage horses very frequently have a lot of saddle work to do, as a number of people who can-

not afford to keep them solely for driving purposes use them as hacks and hunters at the same time, therefore, in breaking them, they should be put through exactly the same course as saddle horses. As jumping, however, is the main point of education in a hunter, and cantering the chief qualification to cultivate in a lady's horse, so should trotting be the primary pace to improve in a carriage horse; therefore, the breaker must concentrate his efforts to make the colt a perfect trotter, or at least as near perfection as the peculiarities of his nature and paces will allow. It rarely happens that horses are good both in saddle and harness, as a participation in both is deleterious to either, and, to those who can afford it, saddle and harness horses give most satisfaction when kept at their own particular work.

HOW TO DRIVE A COLT DOUBLE.

Colts intended for carriage purposes should, like colts intended for agriculture, be placed on the off side of an active, willing-working horse that will always be ready to move off with the colt, or even, if necessary, to start the brake alone. The driver should steady the colt well in going to the hill, and should endeavour to prevent him struggling from side to side, or rushing up by a series of plunges and bounds. The driver should persuade him to negotiate the hill at a steady walk, and should always allow him to have as much head as he wishes—consistent, of course, with safety. When the colt is

drawn tightly together by bearing reins he cannot get his head into a natural position; he will in consequence struggle against the collar, and in all

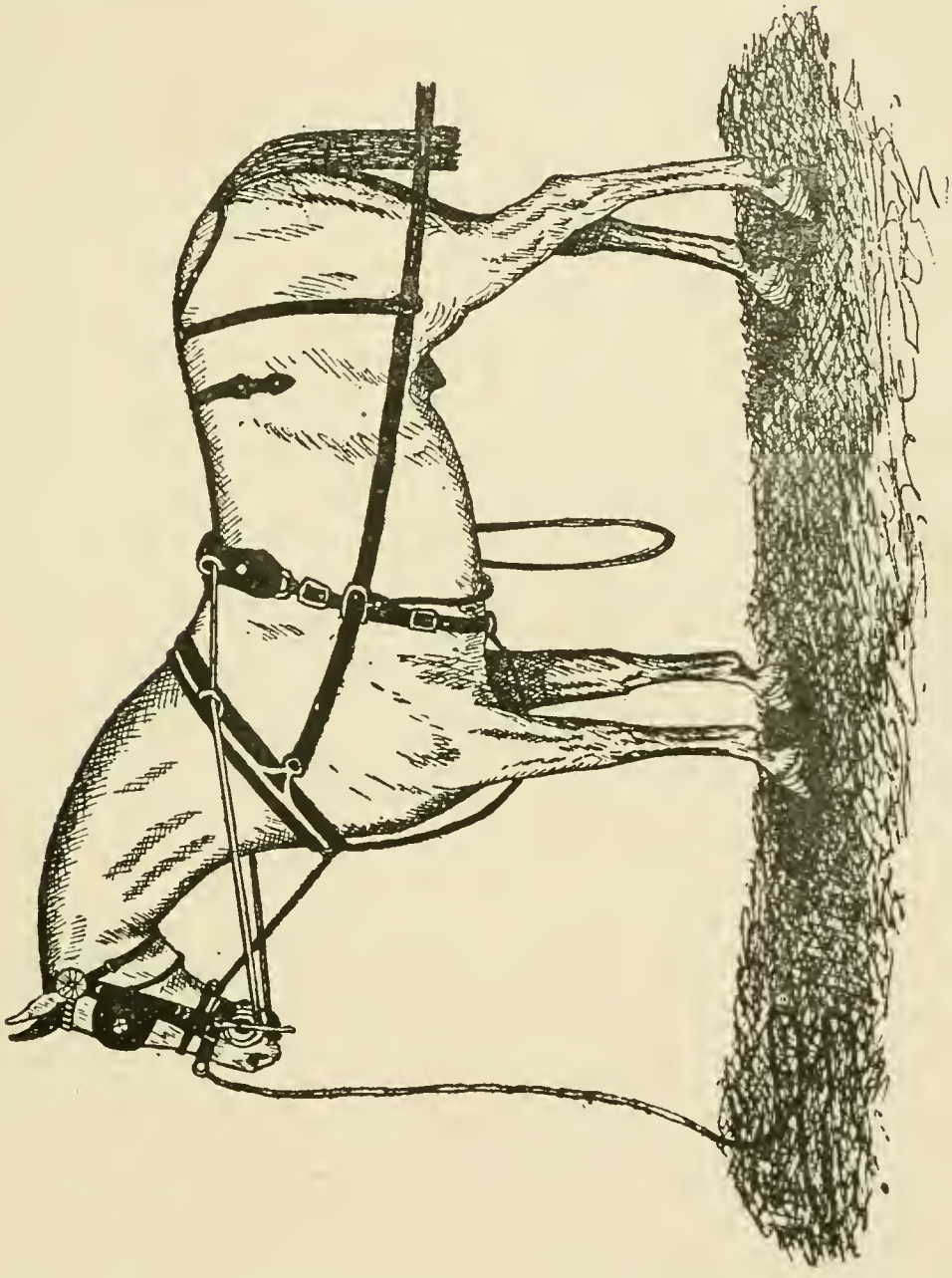


Fig. 28.—Putting Colt in Double Harness.

likelihood will develop into an unsteady worker. The whole of his bindings should be adjusted an inch or two shorter than those of the horse on the near

side of him for the first half-dozen times he is yoked which will steady him better and give the driver considerably more power over him. In the majority of cases he will give the driver exceedingly little trouble if the directions which are given elsewhere are respected. The driver must always be careful to note that every strap is properly buckled and the reins adjusted in their right place before starting the colt as a number of accidents are traceable to neglect in this matter (Fig. 28).

"Tandem" and "Four-in-hand" teams are now so seldom seen on the public highways that special details regarding them appear unnecessary; as a rule the lighter and more active horses are used as leaders, and the heavier and stronger horses as wheelers. Only a man with good hands can earn the distinction of being considered a first-class "Whip," and long and varied experience is essential before this is attained.

ANECDOTE ABOUT A FARMER.

An amusing anecdote is told of an old farmer who was returning home one evening from market under the influence of liquor. The ostler, in yoking the horse in the dark, neglected to attach the reins to the bit which, by mistake, were buckled to the terret rings of the hames. The jolly farmer rolled into the trap with the assistance of a friend, drove off and reached his home in safety, without knowing that the reins were attached to the terret rings

instead of the bit until told by his groom the next morning. On being twitted by his friend on his nocturnal adventure, he jocularly replied that "A horse that was so light in the mouth as to require to be driven with the reins in the hame terrets was a perfect humbug!"

HOW TO IMPROVE THE COLT'S ACTION.

The action of a carriage horse must be high to lend style to his appearance, yet not so high as to impede his progress in getting over the ground, because when a carriage horse has high brilliant knee action, like the lifting of a stepping Hackney, his owner had better take good care always to start *in decent time to catch a train!* The breaker should not strive to *raise* the colt's action so much as he should try to bring it *forward.* He must endeavour to train him, while lifting to a fairly good height, to strike well forward at the same time, and he will thus combine both style and speed. The best method of accomplishing this is to drive the colt with a Liverpool bit (probably the best all-round harness bit in use), with the reins in the middle bar, or if he has a strong, hard mouth, in the lower bar, and he should be driven over rough, uneven ground. An ordinary ploughed field after a turn of the harrows is very suitable, if it is free from deep furrows. Deep furrows may break the springs of the trap and at the same time frighten the colt. Single harness is better than double for improving

the action of the colt. The colt should be shod in extra heavy shoes, at least double the weight of ordinary shoes, which will induce him to lift high, while the uneven nature of the ground will cause him to strike well forward with his fore feet. He must not be pushed too fast at first or it will cause him to break his paces, which must always be carefully guarded against. He should be kept going on the curb with a light feeling of his mouth and a slight indication of the whip, if necessary. The breaker should continue driving the colt for an hour or two each day for several weeks. He should then be driven on the road. Before doing so, however, the heavy shoes should be removed from his feet and replaced in the ordinary way by lighter ones, and the unusual lightness of his feet, together with the level smoothness of the road, will persuade him at once to lift higher and strike further forward. Of course, there are occasionally some shuffling brutes to be met with that *will not* move gracefully; still, by careful persevering tuition a marvellous improvement can be made in their action. After a similar course of education administered by skilled and patient hands, even one of the most sluggish movers can be made to pass muster before the eyes of the most severe critic—*even an Irish horse-dealer!*

IRISH DEALERS SEVERE CRITICS.

When a horse can be passed before the suspicious eyes of an Irish horse-dealer he may be considered

as having a safe passport to satisfy the critical eye of the civilised world, because no men are more difficult to please in the matter of horseflesh, so far as picking flaws goes, as evidenced in the following anecdote. An Irishman was looking at a stepping cob with a view to purchasing him. The cob was as near perfection as possible, and his price nearer three figures than was suitable to the purse of the son of the Emerald Isle, and after surveying him critically for a few seconds, he exclaimed,—"It's a foine cob he is, indade, but he lifts so uncommonly high that he actually misses bits!"

THE VALUE OF CARRIAGE HORSES.

In view of the fact that a very large percentage of the best carriage horses in the country are imported from abroad, it should act as a stimulus to British breeders to go in more generally for the breeding of high-class carriage horses. Many horses running in London at the present time have been purchased at as high a price as £700 the pair, and £450 may be considered as the average value of a pair of the better-class carriage horses. The British climate is as favourable for the breeding of carriage horses as that of other countries, so that there is something manifestly wrong in the increased and increasing importations from abroad.

HOW THEY SHOULD BE BRED.

For harness purposes the Hackney will generally prove a more suitable sire than the thoroughbred, because, whilst the latter is chiefly bred for speed and most other qualifications are neglected, the former combines activity, strength, endurance, docility, good action, and symmetry of form. Undoubtedly the thoroughbred is the better sire for the production of hunters and saddle horses, but his low action disqualifies him for the production of high-class horses for harness purposes. Moreover, the blood of the Hackney is as pure and aristocratic as that of the thoroughbred, indeed, the regular descent of the former can be traced back as far, if not further, than the latter. Good-sized mares, true to type like Cleveland Bays, and served by a Hackney stallion, would seem to be a step in the right direction for the production of high-class carriage horses. Half-bred mares, bred from a cart mare and a thoroughbred stallion, would also be likely to breed fashionable carriage horses if served by a pure Hackney stallion.

"THE STUD FARM OF THE WORLD."

This is a matter well worth inquiring into, because the successful breeding of carriage horses is a highly remunerative business, and with excellent raw material to work from in Britain there is no reason why she should take a secondary place to other countries in the production of carriage horses. It has been said

that Britain is "the stud farm of the world," and the description is perfectly true, because the foundations of most foreign stock—horses, cattle, sheep, and pigs of all classes—have originally been drawn from the British Isles, and by careful selection and mating they have been raised to a wonderful degree of excellence, the progeny of which, in the matter of carriage horses, make very remunerative prices in the London market.

It appears that foreign studs have a tendency to degenerate, and in order to rejuvenate them and maintain their breed-standard of quality and substance, periodical importations of sound pedigreed animals must be made from this country. This is encouraging to breeders as scarcely any department of agriculture is more remunerative than a healthy, well-sustained export trade.

CHAPTER XXII.

HORSE SHOWS.

That horse shows have exercised a beneficial influence on the improvement of horses of all classes, particularly during the last quarter of a century, few people will venture to contradict. If the two extremes are considered — for example, Shires and Shetland ponies — the improvement is marvellous indeed. The round bones, short pasterns, and hairy legs possessed by the former a quarter of a century ago have gradually been evolved to flat, hard bones and finer hair, their ankles have been lengthened, and their feet have been expanded in the right direction. In large towns magnificent specimens of this splendid breed of horses are constantly to be seen at work on the streets, and it is to this branch of agriculture that breeders should in future direct their attention, because it is probably the most lucrative branch of all. At present England enjoys a monopoly in the breeding of heavy horses which foreign countries hitherto have failed appreciably to disturb. Shetland ponies have also been vastly improved along the right lines. Correct conformation has been achieved with the retention of all the natural

characteristics of this hardy breed. As with Shires and Shetlands, so with all the intermediate breeds of horses, and it is not claiming too much to affirm that shows are very directly responsible for this.

Notwithstanding the successes that shows have attained, however, there are a few disputed points in show regulations to which attention may be directed in the hope that at least some subsequent suggestions may be of practical help to agricultural societies. These are advanced in no dogmatic spirit, and must be judged on their merits alone.

APPOINTMENT OF JUDGES.

The appointment of judges is always more or less a difficult piece of business for a council to face. The question whether single or double judging is the better plan requires yet to be proven. By the former system the responsibility is great, and some excellent judges hesitate to accept it. On the other hand, the system prevents men accepting who might be inclined to rely too much upon the opinions of their colleagues. By the system of single judging there is certainly a great economy of time, and with thoroughly practical men, carefully selected, there is no particular reason why the system should not ultimately work well. Double judging absorbs a lot of time, and not infrequently an umpire requires to be called in to settle matters, so that in these cases the system finally resolves itself into single judging.

Assuming the number of judges to be settled,

each show society should have a long list of the names of capable judges, all of whom must be unbiassed and not pecuniarily interested in individual exhibits. The length of the list should be proportionate to the capacity of the show. Ten for each class might probably be sufficient. A limited number of fresh nominations should be made every year in order to introduce new blood and maintain the list to a uniform working standard. Fresh nominations should be made after, and not before allotment for the ensuing show season, and they will thus be eligible for allotment the following season for the first time. A simple system of allotment is to shuffle the names in a hat, the names to be drawn by a member approved by and in presence of the council. For single judging three names may be drawn, the names to take precedence according to the order of drawing. Thus future eventualities which may prevent the attendance of judges are provided for. In double judging, allotment should be made in the same ratio. This system would render the formation of cliques impossible, and the results would be likely to prove more satisfactory to exhibitors, judges, and all parties concerned.

MEASURING HORSES.

The measuring of horses has generally been a vexed question for show societies. It is not uncommon, for example, for the same horses to be exhibited in classes under and over fifteen hands high. An

inch may be gained or lost by different systems of measurement, by the method of shoeing, and by the spirited or languid condition of horses. Exhibitors who are anxious to reduce the size of their horses so as to render them eligible to compete in certain classes can train them to stretch out, and *vice versâ*, to increase their size. This can be done so scientifically by showyard professionals that experts in measuring horses are absolutely baffled. At the same time no two experts probably measure a horse identically.

The difference in the thickness of shoes may easily account for an inch either way, therefore it obviously follows that horses must be measured with their shoes off in order to obtain authentic standards. This would be impossible in the showyard, and the alternative would be for owners of competing horses to be furnished with a local veterinary surgeon's certificate of height previous to being exhibited. No veterinary surgeon would make an unfair declaration in the interests of a client. If he did, his practice might suffer, and he would bring discredit on the dignified profession to which he belongs.

Although spirited and languid-tempered horses may record the same height in the stable, the former will gain an inch on the latter in the open. Thus all measurements, to arrive at fair conclusions, should be conducted in the stable. It is doubtful if the general system of measuring horses at the withers is the correct one, because, whilst horses may be an

abnormal height at the withers, it does not follow that they are big and up to carrying weight. Probably a more scientific method of measurement would be to take the height at the middle of the back just where the centre of the saddle rides, as this is really the exact region at which to determine the height of a horse, so far at least as the rider is concerned.

CERTIFICATES OF SOUNDNESS.

Although it may appear drastic, the writer is of opinion that horses which cannot procure a veterinary surgeon's certificate of soundness should not be allowed to compete at shows. Opinions differ about splints, sidebones, etc., still there is a fairly-established degree standard which can generally be employed in order to determine soundness. On nice points comparatively little harm would be done were such animals given the benefit of the doubt, because, happily, they only form a small minority. If soundness be the first essential in horses, it ought also to be the primary requirement with show societies. With only sound horses competing for showyard honours, the work of judges would be simplified, the public would see the best horses competing that Britain can produce, and probably fewer unsound horses would be bred in future.

SHOW TICKETS AND CATALOGUE NUMBERS.

The difference in colour of prize tickets at different shows, and the indiscriminate manner in which

catalogue numbers are worn, lead to no end of confusion in the eyes of the public. It would be a great advantage to everybody concerned if a uniform colour of prize tickets were adopted by all show societies. Probably the majority of shows distribute the following colours in their awards, which might serve very well as a universal standard :—First prize, red ; second prize, blue ; third prize, yellow ; commended or reserve, white. In all cases the prize tickets should be fixed on the off side of the headstall or bridle, so that they will remain flat partially on the cheeks and partially on the necks of horses. The corners of show tickets might be rounded and the tape passed through each corner about two inches from the margin, which would prevent folding up and tearing.

Catalogue numbers in all cases should be worn on the near side of the headstall or bridle, and to prevent tickets turning round and exposing the blank side, as they frequently do, they should be made oval, with the tape holes an inch from either end.

When properly fixed no wind or motion of the horses' heads will displace them. At present catalogue tickets are worn practically all over horses, entailing great inconvenience on spectators, whose catalogues in such circumstances are of comparatively little use to them in determining the description and breeding of different horses.

DRESSING HORSES.

All the various breeds of horses may be dressed for competition according to the popular fashions of distinctive breeds. Heavy horses look better and gayer with a moderate display of national-coloured ribbon tastefully arranged. When horses are overloaded with decorations, however, they detract from their appearance. The eye catches the effect of the adornments rather than the horses themselves, and it is not too much to affirm that many excellent animals have failed to get into the prize list on account of extravagant decorations. The forelocks, manes, and tails may be plaited with ribbon with excellent effect. An expert manipulator, by the curve he gives the mane, can improve the appearance and cast of the necks of horses to an extraordinary degree. This, however, is really a fine art, a comprehensive description of which is utterly impossible on paper.

Light-legged horses should be carefully dressed about the manes and tails, otherwise their general appearance will be lessened. Manes that do not naturally lie well are best "hogged" or plaited over.

During cold weather at shows it is advisable to sprinkle sawdust over the backs of foals. Being unaccustomed to wear clothing it is impossible to sheet them like horses, as they would either tear them to pieces or become uncontrollable by fear. As long as the sawdust can be kept on it has a

wonderful influence in producing warmth, and it is easily removed on entering the show-ring for competition. Sawdust may also be rubbed on the legs of heavy horses with advantage, as it tends to stiffen the hair, which greatly improves the appearance of horses of this class.

Good, even shoeing is indispensable; badly-fitting shoes or broken hoofs greatly detract from the appearance of horses. All competing animals should be trained to run by the use of a long strap. A good mover is half the battle where action is concerned.

SHOWYARD JUMPING.

This is a matter of first-rate importance and well worthy the attention of those interested in jumping. Prizes for jumping at shows are generally given for "The best horse over hurdles," the result being that probably the majority of prizes in Britain are won by regular showyard professionals which have no pretension to hunters in the proper sense of the word. They are very often mere circus-like horses, shuffling broadside on till within a few yards of each hurdle, when they get over without the least display of style, and because they get over, no matter how, they win. Such horses could not live with hounds for a couple of miles across a heavy country where fences require to be naturally negotiated. Many of them have no wind to gallop, and would refuse fences if ridden at them in cross-country fashion. All show jumpers in Britain do not come within this

category, but it will be admitted that far too many of them do, to the disadvantage of *bona fidê* hunters, which could beat the former on every occasion under natural conditions. Show societies would do well to adopt the jumping regulations of the Dublin Society, where something like a fair and natural course is available in order to test the merits of horses. At Ballsbridge the ordinary shuffling showyard jumpers would very soon come to grief or suffer disqualification.

Were the system adopted in Britain of making horses complete the course before being pulled up very few of the broadside-on showyard type would survive a single season.

In judging jumping it is a good system to give the highest points towards style and safety, which must be assumed for cross-country work, and not towards mere height, irrespective of how horses get over.

But this principle must often be sacrificed at the shrine of gate-money. Languishing finances induce show societies to cater to the public taste. "The man on the street" must be amused for his admission ticket, whilst the genuine lover of the hunter and hound is disgusted by the unpractical display. The difficulties of dealing with this question are not disguised. An alteration in the regulations might result in reduced entries, but the possible falling off would eventually be more than repaid in the quality of the horses and in the genuineness of the contests.

It is preferable to have all jumps at shows constructed so that if the horses strike them they will be easily knocked down, and accidents will thus to a great extent be avoided.

Bare hurdles, and hurdles filled with branches, should be constructed to fall flat on the ground instead of swinging from the centre as they often do, and horses are not so likely to get their legs entangled in them.

It is a good plan to build walls with blocks of wood from the foundation, so that when they are struck by horses only the struck portion falls, which, in addition to being safer for the horses than partially solid walls, also economises labour and time in repairing them.

Water jumps should be faced by a couple of bare rails at least two-and-a-half feet high, and the width of the water need not exceed twelve feet, which is quite sufficient to test the capacity of horses.

Bare bar jumps are probably the most difficult for horses to negotiate. At many shows only one bar is used, which, in the opinion of the writer, is a mistake, because when the bar is raised to five feet or more, it is, roughly speaking, on the same elevation as the heads of the horses. Its appearance is very unnatural and confusing, and a hesitancy is often apparent on the part of horses when they reach it, as if they were undecided whether to rise to it or to dodge under it. Two light rails beneath the bar effectually prevent this, as they fill the space

between the bar and the ground which gives the jump a more natural appearance.

Trap-jumping necessitates cleverness rather than extraordinary jumping powers. The hurdles need not be more than three-and-a-half feet high, and it is preferable to have the second slightly lower than the first.

All wings at the sides of the various jumps should be from two to three feet higher than the hurdles, and horses will be less likely to shy past the ends.

CHAPTER XXIII.

HUNTING AND HUNTERS.

"What a fine hunting day, 'tis as balmy as May!
And the hounds to the village will come;
Every friend will be there, and all trouble and care
Will be left far behind them at home.
See! servants and steeds on their way,
And sportsmen their scarlet display,
Let us join the glad throng that goes laughing along,
And we'll all go a-hunting to-day."

Of all the amusements in this country hunting is one of the oldest and best. The entertainment it affords is so varied in character that one or other of its several phases is generally sufficient to meet the desires of the most fastidious people, from the most enthusiastic cross-country squire, whose very soul imagines a perfect elysium in the negotiation of a stiff rattling run, to the respectable country parson who, mounted on his stout half-bred cob, may be seen jogging from hill top to hill top under the convenient pretext that he is out enjoying the splendid scenery and the fresh morning air, but who in reality is enjoying infinitely more the inspiriting and fascinating view of the gallant hounds at "full cry" in the valley below. Nor is this

wonderful passion for hounds entirely confined to equestrians, for what schoolboy is there who, when he hears "the sound of the horn on a fine hunting morn" will not "play the truant," even in the very teeth of that most humiliating administrator of justice, the "tawse"? But the pain of similar punishments in the past is counterbalanced by the intoxicating delights which necessitated it, and so he bolts off whenever an opportunity presents itself, and runs in hot pursuit of the hounds as long as his legs will carry him. The writer has many a time, when at school, been chastised for similar misdemeanours, but the wrath of the teacher always appeared in a measure fictitious, and if the dignity of his position and the discipline of the school could have been maintained, he himself would probably have been the *first* to show the way!

Again, in passing through a village every heart beats high at the inspiring "sound of the horn," and the humble villagers turn out to a man—ay, and to a woman, too—to catch a glimpse of the dashing hounds, while they stand in breathless wonder gazing with unfeigned delight till the last rider has disappeared. Even the usually low spirits of the miserable tramp on the public highway become elevated at the sight of hounds. He will invariably stop and watch hounds and riders dashing past in brilliant haste with an interest which no other circumstance can awaken in his heart. The stolid, sour expression of his wretched countenance, deep-

ened and developed, it may be, by the privations and dissipations of a lifetime, will for the moment be supplanted by a bright, cheerful look approaching almost to happiness—at least a look more full of interest and astonishment than any other casual circumstance can produce.

REAL AND IMAGINARY FOLLOWERS.

While hunting has a singularly fascinating attraction for most people in most circumstances, and is recognised as one of the manliest of sports, yet there are few outdoor amusements more generally abused, because it is taken advantage of, and, in their own way, indulged in by a number of men who have no adequate appreciation for, or real conception of, what thorough and go-ahead hunting means. Thus the general character of the sport is reduced to an artificial level. In fact, only about thirty per cent. of riders who profess to follow hounds ride straight and *hunt* in the proper sense of the word, and the hunting of the remaining seventy per cent. simply amounts to pulling down fences, spluttering along lanes and highways, dodging from hill top to hill top, and inquiring with an eagerness which is wholly worthy of a better cause the stock hunting question, "Have you seen the hounds?" from every person they meet. They will say they are "Confounded unlucky!"—"Got thrown out of the run!" "That wretched hire of theirs wouldn't jump!" *(lucky for the rider that it didn't)*, and a hundred and one

other convenient phrases to boot, which are neither more nor less, to use a mild expression, than downright sophistries. The truth is, such riders have no more genuine intention of following hounds than hounds have of following them, and that for the best of all good reasons—*they dare not.* These inexperienced riders frequently do a great amount of damage, possibly unintentionally, by galloping over newly-sown wheat and young seeds during wet weather which naturally turns many farmers against the hunt. These indiscretions are never indulged in, unless under very exceptional circumstances, by true hunting men. Barbed wire is one of the modern curses of hunting, and if more discretion were exercised by these reckless riders, probably less of it would be used. It is gratifying to observe that some masters of hounds are offering prizes to farmers whose farms are free from barbed wire. Farmers will be acting in their own interests to encourage hunting as much as possible, because in the maintenance of hunters, hounds, and hunt servants, the annual expenditure in this country approaches the enormous sum of £8,000,000.

It is often infinitely amusing at the break-away, with a field of thirty or forty riders. There is a general rush forward, reins are tightened, hats are pressed on, spurs are dug in, and these hot-headed would-be followers, who, however, are only followers in name, are off like random rockets at full racing stride, applying the whip with an onslaught which

would do credit to a professional jockey finishing a neck-and-neck race for Derby honours. In no circumstances in life, however, is the Scriptural proverb, "The first shall be last," more fully realised, because the first stone wall is generally sufficient to dampen their ardour and reverse the order of the riders, substantiating the Scriptural quotation in a very forcible manner. Out of the thirty or forty riders only about ten or a dozen will negotiate the wall, thus the real followers are divided from the imaginary, and the former go on straight with hounds, whilst the latter betake themselves—some to look out for a gateway, others to pull down the wall to its very foundation. These are the gentlemen who, squandered over the whole district in search of hounds, tell every shepherd they meet that they have been "Thrown out!" "Deucid unfortunate!" etc., and who thereby bring down the general character of hunting and reduce the time-honoured sport to a ludicrous burlesque.

A good story is told of a stray follower of this class who came galloping up to a shepherd with the salutation, "Halloa, man! has that wet piece of ground got a bottom?" "Ay, sir!" replied the shepherd, taking in at a glance that he was no rider, "it has." On went the madcap, and before he had taken a couple of strides he was up to the saddle-flaps in black mud and water. "Villain!" shouted the unfortunate swell, in accents of anger, "you told me it had a bottom." "So I did," replied the honest shepherd, "but I never said where it was!"

HUNTING A HEALTHY EXERCISE.

Not only is hunting a pleasant amusement, it is also a most bracing and salubrious exercise. It is said that "the inside of an egg and the outside of a horse" are more conducive to the general health and happiness of man than any other two things in the civilised world. There is a fund of truth in the assertion, for scarcely anything is more nutritious than an egg, and nothing more exhilarating than to get astride a fine spirited hunter on a fresh balmy morning, with "a southerly wind and a cloudy sky," and start off for the meet within easy riding distance in the fond anticipation of a good jolly day's hunting. In these days of motor locomotion it is not uncommon to see gentlemen being conveyed to the covert side in cars, but whether it adds to the manliness of hunting is rather questionable.

Two things are absolutely necessary in the hunting field to make hunting a success, viz., a thoroughly good horse that can be depended upon at his fences, and that the rider himself is a good and skilful horseman, so that he may know how to ride the horse in order to take as little out of him as possible.

THE BEST KIND OF HUNTER.

There is a prevailing tendency at present to introduce thoroughbreds into the hunting field, and there is no doubt that in the open country and across the upper moorlands, where speed is the essential re-

quirement, they have a decided advantage over under-bred horses, but over a heavy district, with a large proportion of land under the plough and a deal of heavy jumping to encounter in addition, they are very ill-adapted for such work, unless they are exceptionally strong, and even then carrying a light weight.

The three-parts-bred horse, for all-round hunting, is undoubtedly the best, for in him are combined fleetness, durability, and strength. He is generally possessed of a better temper, and is a superior jumper to the thoroughbred, while he has quite sufficient speed to live with any ordinary pack of hounds, and he will also carry a very much heavier weight. He should be bred from a half-bred mare and a thoroughbred sire, and his dam also should be got by a thoroughbred stallion. If bred the opposite way he may be rougher in his paces, less perfect in symmetry, and he will generally be in possession of a more stubborn temperament. At the same time, a number of excellent hunters are bred from hunter stallions that are not thoroughbred, and little can be said against this system if the mares that are mated with them are suitable. It is easy to breed hunters up to twelve stones, but difficult to breed them up to fifteen and retain sufficient quality. The Hunters' Improvement Society is now taking this important matter in hand, and much good may be expected to accrue therefrom.

CHIEF INDICATIONS OF A HUNTER.

The chief points to look for in a made three-parts-bred hunter are as follows :—

He should have a quiet temper ; sound of wind and eyesight ; free from pulling, with a pleasant, tractable mouth ; and his manners generally should be as nearly perfect as possible. His head should be small, broad between the eyes, and tapering finely towards the muzzle. His eyes should be large, prominent, and should show plenty of courage when put upon his mettle ; while his ears should be well set on, small and pointed, and when erect the tips should incline well towards each other. This is generally a certain indication of courage and stamina. Horses with long, flapping ears should always be discarded, as they are invariably wanting in pluck and endurance. The neck of the hunter should be moderately long and lean, slightly arched, and well placed on a set of fine sloping shoulders ; while his withers should be high, so that he may carry the saddle in a good position. Horses with straight thick shoulders should always be avoided for saddle work of all kinds, as their action is generally unpleasant. The hunter should be deep-chested, with well-sprung ribs, a short straight back, and in possession of strong, well-developed, muscular quarters. He should have well-proportioned, flat-boned legs, like whalebone. They should not be too long from the knee to the pastern joint, and his pasterns should

neither be too long nor too short. When they are very long they are generally weak, and when short and straight the horse will be rough and stumpy to ride, therefore, a happy medium is desirable. Nine times out of ten a short-legged hunter will tire a long-legged one, and he will generally be safer to ride. The hunter should be free from splints and sidebones before, and from curbs and spavins behind, as well as from all other blemishes peculiar to the legs. The hocks particularly should be strong and well moulded, as they undergo a greater strain in the hunter than in any other kind of horse, in consequence of him frequently having to gallop over soft ground, with heavy jumping in addition. A horse of this stamp will carry the saddle perfectly. It will sit well back from the play of his shoulders, whilst the girths will be from eight to ten inches behind the play of his forelegs, and in this position they are not likely to nip or fret him in any way. When mounted on a well-made hunter the rider will always have the larger half of the horse in front of him.

FEET, COLOUR, AND MARKINGS.

The feet of a hunter should be medium-sized, well spread and hollowed beneath, and the hoofs tough, sound, and durable.

The question of colour is purely a matter of taste, and a good horse should never be objected to if he happen to be a bad colour. Chesnuts, bays, and

browns, however, are generally the most fashionable and the most appreciated. A horse with white fore-legs should be avoided if the white extend above his knees, as he is generally believed to be weak upon them, and they are a pronounced eyesore in his appearance, whilst white pasterns behind and a narrow stripe or star on the forehead are certainly decided embellishments. If, for instance, the beautiful old horse, Truefit, had worn his white stockings on his other extremities he would possibly have appeared nearer perfection than any other thoroughbred stallion that ever lived. Grey horses, although often hardy and good, are objectionable on account of their colour. They are easily stained with dirt, and when shedding their coats the displaced hairs are very conspicuous on the clothes of their riders. The interesting subject of colour, however, will be fully discussed in a subsequent chapter.

The mane of the hunter should lie evenly over to the off side, but in cases where they lie badly it is preferable to cut them out; hog-manes are much in evidence at present; they look smart, but are very unhandy for mounting and dismounting. The tail of the hunter should be well cut away to the end, and he should carry it very nearly horizontal when extended at a gallop.

He should be stylish, and his action straight at all his paces. Too close action before is dangerous in a hunter, as he may trip up and pull himself down, whilst, if it is too wide on the other hand,

he will be slow. A medium width of action, therefore, is the proper thing to look for.

These are the chief indications of a good hunter, and when anyone in want of a horse discovers one in possession of such qualifications, he should never miss the opportunity of making him his property if the dimensions of his purse will permit of it.

SUMMERING HUNTERS.

Opinion is divided as to whether it is better to turn hunters out to grass during summer or to run them in roomy courts or boxes. If they are turned out to grass it is a good plan to take them in for five or six hours in the middle of the day when the sun is hottest, otherwise they will suffer unnecessarily from the attacks of flies, etc. Cool dews on the grass have an excellent effect on their feet; they promote elasticity and toughness, and many hunters that are turned out to grass in the spring with tender feet come in at the back end of summer fairly sound.

When summered in courts the shoes should be removed, and a portion of the courts should be spread occasionally with fresh earth which keeps the feet tough and in good condition. When the shoes are removed, the sharp edges should be cut from the hoofs to prevent them getting ragged and broken. Fresh-cut grass and abundant pure water are all that hunters require in such circumstances.

CHAPTER XXIV.

HUNTING EQUIPMENT.

In the opinion of the writer the best saddle that can be used is a plain hunting saddle made of the best boar-skin, with strong double girths and large open stirrup-irons. It should have easy-working springs, so that in the event of the rider getting a fall he would not be dragged, as his foot would readily leave the stirrup, or the stirrup-leather the spring, either of which would be sufficient to release him with great facility (Fig. 29). A shoe-case may be carried at the side of the saddle, in which is a hinged shoe,

FIG. 29.—HUNTING SADDLE.

with a supply of nails for fixing it, in the event of the horse casting a shoe. Shoe-cases are frequently carried for pure ornament, and are of very little use for practical purposes unless occasionally fitted with shoes suitable to the feet of the horses which are being hunted (Fig. 30). The use of a breastplate is advantageous in many ways, but particularly so when a horse is flat in the ribs and falls away behind the girths. With a horse of this kind there is great difficulty experienced in keeping the saddle in its proper position. The breastplate is a decided adornment, as well as being useful in maintaining the saddle in its true position. It should be fitted easily to the horse, and it is well to have the part that goes over the shoulders padded, so that it will not fret the horse

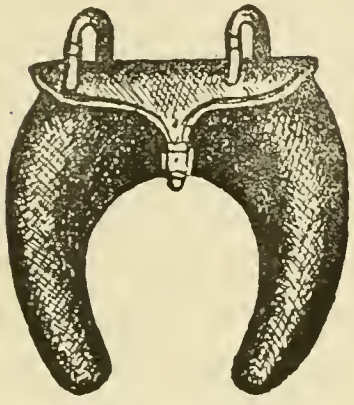


Fig. 30.—Shoe-Case.

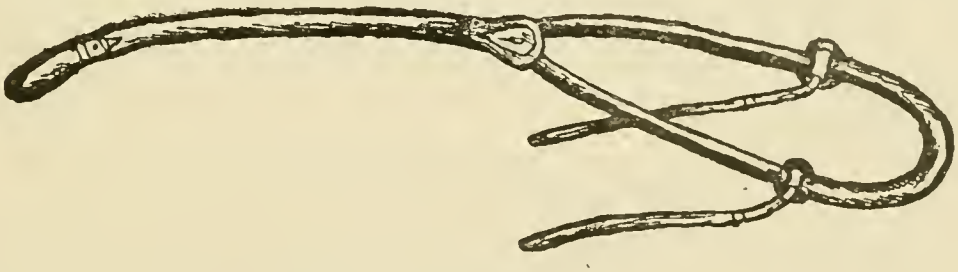


Fig. 31.—Breastplate.

when any strain comes upon it (Fig. 31). The ordinary double bridle with snaffle and curb is generally the best all-round hunting bridle, as it is suitable to the majority of horses. The rider has far more power over the horse, and can steady and collect him

at his fences with much greater command than with, for instance, the plain bar-snaffle (Fig. 32). If the horse has a light, tender mouth, the rider can ride him with the major part of the weight on the snaffle rein; whilst, on the other hand, if his mouth is hard and stubborn, he can ride him with the greater pressure on the curb rein. This is easily managed by simply drawing the rein, on which it is intended to ride the horse, up through the fingers, as fully described in a former chapter. If the reins are properly held no difficulty will be experienced in riding almost any kind of horse with a double bridle with ease and safety. The curb should not be drawn too tightly, and it should be held in its proper place by a light leather strap (Fig. 33).

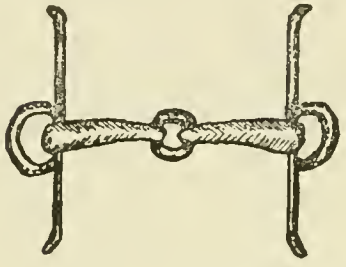


Fig. 32.—Snaffle Bit.

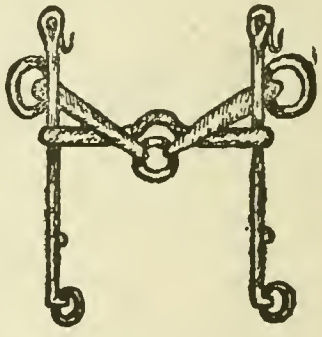


Fig. 33.—Double Bit.

EVILS OF THE MARTINGALE.

The martingale should never be seen in the hunting-field, unless absolutely necessary. Ordinarily, it is a dangerous piece of gear, whilst, at the same time, it spoils the gait and general appearance of the horse. It retards his fore action, and with over-harnessing about the neck and chest, his neck is made to appear shorter than it actually is, which imparts to the hunter

a cobby appearance that is most obnoxious to the eye of an experienced huntsman. No horse can jump with freedom in a tight martingale. He is bound together, and cannot extend himself sufficiently to accomplish the task required of him, and very frequently he receives a check which brings him back over, or something worse, if that can be; therefore the use of a martingale in the hunting-field must be strongly condemned, unless it is worn upon a "ewe-necked star-gazer," which class of horse should never really be seen with hounds. In cases where the martingale is worn loosely, either on the snaffle or the curb rein, it can neither do much good nor much harm, except to detract from the appearance of horses by over-harnessing. A French martingale, or "Bar-ring," is often useful in preventing a horse throwing the reins over his ears. Some horses acquire this habit and will often displace the reins if not held in position by a French-martingale (Fig. 34).

Fig. 34.
French Martingale.

NEEDFUL EQUIPMENT.

The rider should always carry a good hunting crop, if for no other reason than the opening and closing of gates. He can open or close an awkward gate with great facility, simply by drawing or pushing it with the hook of the crop as required. The crop should be strong, and should have a brass stud in the centre of the head, which will prevent it slipping off

the gate when applied to push it open (Fig. 35). There are three things which should always be in the rider's pocket in the hunting-field, and these are,

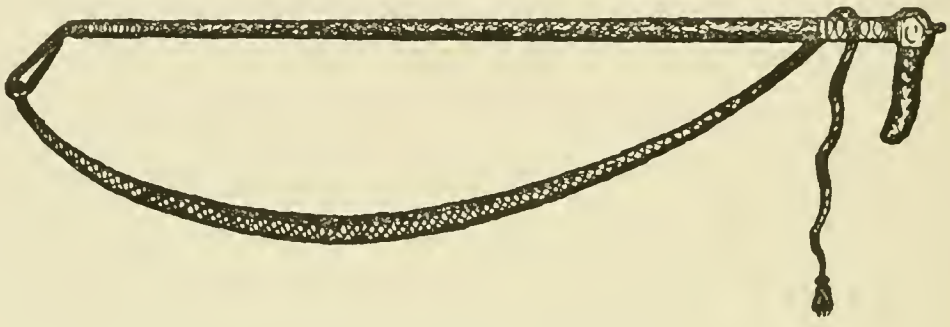


Fig. 35.—Hunting Crop.

firstly, a few biscuits to satisfy the craving of the inner man when a check occurs, for no man will enjoy a run with an empty stomach (perhaps a flask containing an innocent stimulant might also be included!); secondly, a pocket-knife, so that if a stirrup-leather should happen to break, which is no unusual occurrence, the rider can cut a hole through it in order to get it laced, besides being useful in many other ways; and thirdly, a piece of cord, so that in the event of the saddle-girths bursting, reins breaking, etc., he can at once temporarily repair the damage. It may not be particularly neat, but he can make it sufficiently strong, and it will serve the purpose for the time being which is all he requires. But some readers who are only partially acquainted with the innumerable exigencies of the hunting-field may consider such safeguards as trifling and insignificant; if there are any such, the writer should like to respectfully ask them what they would do in the

middle of a run if their saddle-girths broke without having the necessary materials in their pockets to remedy the misfortune?

HOW TO ACT WHEN THE HORSE CASTS A SHOE.

If the horse cast a shoe in the middle of a run, which very often happens on crossing soft, marshy ground, and occasionally in landing awkwardly at a fence, the rider should discontinue following at once, and turn the horse's head in the direction of the nearest blacksmith's shop and get the shoe replaced immediately. If possible, the horse should be ridden on the grass at the side of the road, which will be less likely to break the hoof than if he were indiscriminately ridden along the road.

EVILS OF FOLLOWING WITHOUT A SHOE.

In some cases, where the ground is moderately soft and good going, the rider may, under the exciting influence of the run, be tempted to persevere under the belief that he will do the horse no harm; but in nine cases out of ten it is safest and best not to risk it, for we have frequently seen a good plucky horse brought down through the ignorance and barbarity of his rider in pushing him on minus a shoe. The horse may go lame for months after, with his hoof all ragged and broken, so much so, that the fixing of a shoe upon it is utterly impossible, in consequence of insufficient hoof being left to drive the nails through.

No good horseman who has any feelings of humanity —however fond he may be of the chase—will practice such wanton thoughtlessness; but only those who are ignorant and unkind, and consider the horse a sort of motor machine that can be wound up periodically to do duty for a given space of time, without considering for a moment the thousand and one exigencies which may arise in negotiating the chequered and difficult work of the hunting-field.

HOW TO PREVENT OVER-REACHING.

A number of horses are given to over-reaching themselves, especially on soft land, occasionally pulling themselves down, dislodging the shoe, and carrying a portion of the hoof along with it. It is extremely dangerous both to the horse and the rider, and the best preventive is to have the horse shod short in front, so that if he should still continue to strike his fore feet with his hind ones, the shoes will be of insufficient length to permit him catching hold of them, and thereby pulling himself down. At the same time the heels of the shoes should slope well forward from the hoof towards the ground, with the ends neatly rounded off and polished (Fig. 36).

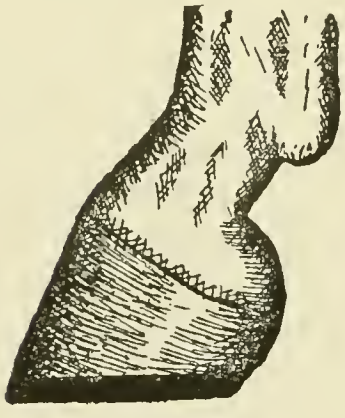


Fig. 36.
Short Shoe Fixed.

"BRUSHING" AND HOW TO PREVENT IT.

"Brushing" is a very disagreeable thing, and not infrequently it is the result of fatigue, when the horse becomes wearied and careless in the use of his legs, though in many cases it is in consequence of close, confined action either before or behind. A horse that brushes with his fore feet is a thoroughly dangerous

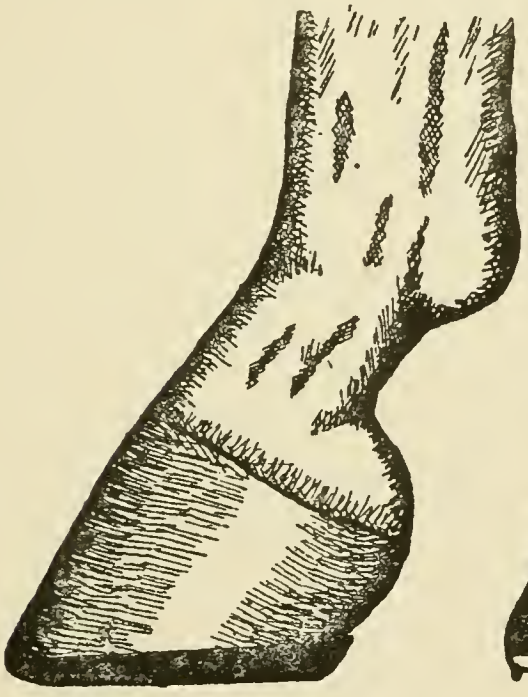


FIG. 37.—INSIDE VIEW.

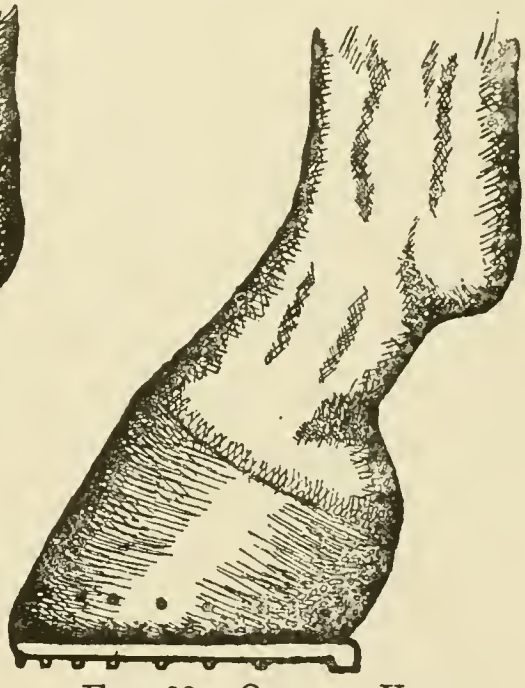


FIG. 38.—OUTSIDE VIEW.

brute to have anything to do with in the shape of hunting, or even riding of any kind, because sooner or later he will trip himself up and go down like a shot from a gun. He can be prevented from cutting his legs by putting "boots" upon him, but they will not prevent him catching and tripping himself up. When a horse is inclined to brush behind he can generally be prevented from injuring himself by fixing

"puff-pads" or spring bandages over his pasterns; but they often cause a great amount of trouble, as they are constantly getting shifted and dislodged, and their presence certainly detracts from the appearance of the horse in giving him a heavy and clumsy look about the feet. A much better remedy is found in the shoeing which entails materially less trouble, and in nearly every case it will prove a permanent cure, indeed we do not remember ever seeing it absolutely fail. The shoe should be deeply embedded well under the crust of the hoof on the inside, the nails driven in along the outside, while no nails are inserted in the inside wall of the hoof at all. (Figs. 37, 38, 39, and 40). Seven nails are sufficient to fasten the shoe; the nails should be extended well round the toe, and a shoe fixed in this manner will rarely shift or shake off. Two strong clips should be on the shoe, the one at the toe and the other at the outside. The writer had a mare shod in this manner for a number of years with perfect success, and she was never known to touch herself nor cast a single shoe after the method was adopted. Previous to its adoption her pastern joints were constantly lacerated.

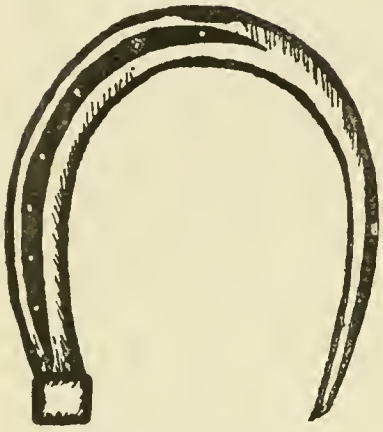


Fig. 39.—Shoe.

Fig. 40.
Back View.

CHAPTER XXV.

HINTS ON HUNTING.

There is probably no outdoor amusement in which science is more necessary than hunting because of its exceedingly chequered nature.

Football may be said to be a right jolly amusement, as well as cricket, golf, curling, etc., yet none of them require the same amount of general scientific skill. All players can take a certain part in these amusements which have been named ; but unless a man can ride, and ride well, he is unable to be a happy participant in the glories of the chase.

WHAT TO DO AT THE COVERT-SIDE.

There is a certain etiquette pertaining to the hunting-field upon which a few hints may be given that may be of some benefit to the inexperienced.

First, then, as soon as hounds are thrown into covert the rider should get to the opposite side of the wind—unless the huntsman request him to watch some particular drive—as reynard will be most likely to " break " there, and he should keep his eyes and

his ears open. Wherever he hears the leading hounds "speak" he should turn his eyes in the same direction, and as soon as reynard "breaks covert" with the hounds in his wake he should put his hand to his mouth in order to condense the sound and shout at the pitch of his voice in shrill hunting accents, "Tally-ho"! "Gone away"! in order to give the other riders around the covert the alarm. Unless he is well mounted and thoroughly acquainted with the district he should never take the lead; but if he know the country and can depend on his horse there is no reason why he should not show the way, for hunting, like all other outdoor amusements, is a leveller of rank, and the distinguished M.P. is placed precisely in the same position—so far as leading the chase goes—as the plucky young farmer, or the village smith.

WHO SHOULD LEAD THE HUNT?

The lead is always open to the best horse and the straightest rider across country, but when the district is strange to the rider he will find it advantageous to follow some trusty old farmer who knows the way to ride across country, and nine times out of ten he will not be far from being in amongst the first half-dozen riders at the "death." It is very rarely that a right specimen of a game old hunting farmer—one of the true "John Peel" type—is ever beaten at straight cross-country work with hounds when he knows the district he is travelling over.

FENCES AND GATES.

The rider should never jump a fence if he can get through at a gate without taking him too much out of the line as it will only exhaust his horse unnecessarily. This sort of thing is a certain indication of juvenile horsemanship. In pulling the cope from a stone wall that may intervene it is preferable to pull the stones to the side the horse jumps from, and there will be less danger in alighting at the other side. There is nothing more likely to bring a horse down than landing upon loose stones.

The rider should never attempt to display his skill by taking "near cuts" but should follow the hounds as straight as the capacity of his horse and the country will permit. He may have some idea of the ground reynard will be likely to traverse, but he can never be certain. A number of circumstances may influence the fox to change his direction, and often under the impression that the rider is making a "near cut" he will get thrown out of the run altogether, therefore, it is wiser as a rule to follow in the line of hounds. The fox may alter his line by coming in contact with a flock of sheep, or he may be "headed" by a shepherd and his dogs, which would cause him to change his original line entirely. In addition to the incidental causes already mentioned the hereditary vulpine cunning of reynard must be considered, which, of itself, is sufficient to upset the confident prognostications of the most inveterate followers of hounds.

HOW TO ASCEND HILLS AND CROSS THE "PLOUGH."

In going to the hill, and on crossing the "plough," the rider must be careful to give his horse plenty of time. In the latter case he should endeavour to get the horse into an open furrow if possible; and if he fall behind he need not be discouraged for when he touches the grass land again with his horse fresh and his head down hill he will soon get on terms with these madcaps (and there are always some in the hunting-field) who, by galloping across the "plough" may have blown their horses, and he will leave them at every stride.

A good story is told of a former Earl of Wemyss who hunted a pack of hounds and always rode a good horse, and nothing annoyed him so much as to be behind in a run. One day he had been thrown out of a run on the Lammermuirs in Berwickshire, and when the majority of the riders were on the top of Cockburn Law where a check had occurred, his lordship was only fording the Whitadder at its base. As soon as he got across the river he galloped up the steep hill-side as fast as his jaded horse could carry him, which, from the undue exertion, was blowing like a steam engine. On joining the others some one remarked that his lordship's horse was surely "Away in the wind." "Not at all," replied the Earl, "he's just got Cockburn Law in his throat!"

THE DANGER OF FOLLOWING ANOTHER RIDER TOO CLOSELY AT A FENCE.

Special care should always be taken never to follow the horse of another rider too closely at a fence, because if his horse should refuse a collision is almost sure to occur by riding into each other.

The rider should always avoid riding before hounds, and he should never cross the "trail" in front of them. With a light scent hounds are frequently at fault, and the difficulty of striking the original line is greatly enhanced by the close proximity of riders. Therefore, when a "check" occurs, the rider should dismount in order to rest his horse, and should leave the huntsman and hounds to find the "trail" themselves.

THE RIDER SHOULD NEVER SUGGEST A "LIKELY" TRAIL.

Unless the rider has absolutely seen the fox he should never volunteer any advice to those responsible for hounds. He should never suggest a "likely" trail, because no huntsman cares to be interfered with in the honourable profession which he has made it the business of his life to improve and to perfect.

The rider should always be ready to dismount with the object of pulling down a fence he cannot jump, or to hold the horse of another rider for the same purpose; and he should never gallop away until the other rider is properly mounted again. Nothing

appears more selfish than this, and a number of excitable horses will not stand to be mounted when another horse rushes away from them at full gallop.

Particular care should be taken to keep out of the huntsman's way, and any assistance he may ask should always be ungrudgingly rendered.

With a horse that is inclined to refuse his fences, it is an excellent plan to follow immediately behind a steady reliable jumper. When a straight lead is obtained from another rider in this way it is generally instrumental in persuading the horse to jump; indeed an acknowledged uncertain fencer can be coaxed over by this method when all other treatment fails.

INCIDENTS OF THE HUNTING FIELD.

The rider should never laugh nor make any sarcastic remarks to another who may fall at a fence. It may be his own turn to go down at the next when the other would be in a position to retort with considerable interest. For example, an old gentleman, who was more to be congratulated upon his fondness for the sport than for the security of his seat in the saddle, had fallen off at a fence and was just in the act of mounting when another sportsman rode up, with the exclamation—"Halloa! old fellow, another fall!"

"Fall, sir!" replied the old gentleman with affected disdain, "*Do you think I was going to leave my hat?*"

There are many adventures in the hunting-field, and most followers can relate some which are both interesting and amusing.

On ascending and descending steep ravines it is preferable for the rider to dismount and lead his horse, whilst he should always be ready to give a lady the advantage of the best ground, and to render her any assistance she may require in getting over awkward and dangerous obstacles.

THINGS TO BE AVOIDED.

Generally speaking, riding amongst sheep should be avoided as far as possible, particularly amongst in-lamb-ewes, as it is well known to practical and experienced hunting men that disastrous consequences frequently follow the disturbance of in-lamb-ewes. When in-lamb-ewes are excited and rushed together by hounds the chances are that a large percentage of abortions are very likely to occur immediately after, as well as a number of displacements at a later stage, and the losses entailed on farmers by this indiscretion are sometimes heavy. Sheep folded on turnips should also be avoided as far as it is practicable; they are frequently confined in small areas and will rush over nets and other obstacles when hounds are near. Scent will not lie where sheep are closely folded together—a fact which sly reynard is ever watchful to take advantage of. Many a good rattling run has been brought to an abrupt termination by coming in contact with sheep. Gates should not be left open if possible as great inconvenience is often entailed upon shepherds by stock getting mixed, etc.; the work of a few seconds on the part of riders will frequently

save hours of work and worry to shepherds, and it is well to have these generally obliging and intelligent men on the side of the hunt. Generally speaking, shepherds have a good deal in their power and can make or mar the pleasures of the hunt to a very large extent. This is well known to all experienced hunting men, therefore, it is generally a wise policy to enlist their sympathies in the hunt. What is applicable to shepherds is also applicable to gamekeepers and trappers, and many masters of hounds give these men an annual dinner, combined with a shooting competition, in recognition of their support. This recognition is encouraging and acts as a stimulus to future effort.

Seeds and winter corn must not be ridden over; it is by hunting men indulging in these indiscretions that farmers sometimes dislike the hunt, and, in order to protect their stock and crops, put up barbed wire in such profusion. These indiscretions, however, are generally executed by inexperienced followers, and it is very unfortunate that thoroughly good sportsmen should suffer in consequence. It is a lamentable fact that many true lovers of the hunter and hound are abandoning the chase altogether because of the dangers of barbed wire.

WHAT TO DO WHEN THE RUN IS FINISHED.

When the run is ended the horse should be ridden slowly home, given a drink of gruel, and thoroughly groomed, whilst his legs should be attended to in

the matter of bandages, directions for which are given elsewhere. As a rule, the horse will be more comfortable in a box than in a stall as he can stretch and roll himself about with absolute freedom.

CHAPTER XXVI.

HOW TO TRAIN A COLT TO HOUNDS.

In training a colt to hounds the rider must exercise great discretion in commencing with him. The colt should be quietly ridden to the meet, and if the rider only let him see the hounds it will be quite enough for him the first day. He must avoid going in amongst the hounds, or even very near them, for the colt, being entirely unacquainted with the unusual excitement of the meet, may let out with his hind foot and wound or kill a favourite hound, which would bring down the wrath of the huntsman upon his head; at the same time it would give the colt a nasty lesson that he would be very likely to remember in future.

THE USE OF DOGS IN TRAINING.

It is a capital plan when breaking a colt for the rider always to have a dog or two accompanying him. The colt becomes familiarised with their companionship both upon the road and in the stable. Their presence upon the road has an excellent effect in reducing the tendencies of the colt to shy at the sudden appearance of objects, because the dogs are

continually crossing and re-crossing before him, dodging through holes in the hedgerows, occasionally falling behind and hurrying up again at full speed, and in innumerable other ways, which all tend to reduce the keen edge from his shying propensities, whether constitutional or acquired, and persuade him to conceive the idea that the various orders of the canine tribe are nearer being his true friends than his mortal enemies.

WHAT TO DO WITH A COLT AT THE MEET.

A three-year-old colt may be ridden to the meet twice a week if within easy distance, but no attempt should ever be made to follow, although when he is four years old he may be given some lessons in hunting. At the meet, before a start is made, the rider should always keep the colt on the move well clear of the hounds and the other riders, and if he show any symptons of nervousness, which he can demonstrate in many ways, by becoming restless, pawing the ground, snorting, etc., the rider should keep constantly caressing him, assuring him by gentle, firm words, and endeavour to restore his confidence. If the colt should grow thoroughly excited and lose his temper the rider must be very careful to preserve *his;* because if he lose his temper and begin to punish the colt, and coerce him into accomplishing that which he has not been adequately trained to understand, he will ruin him. In all likelihood the colt will resist, while he will acquire a jealous dislike of hounds in future.

In addition to this, the rider may figure in the eyes of the whole field in the supremely ridiculous position of being not the conqueror but the conquered; and in coming off only second best he may rest assured that the colt will endeavour on any similar occasion to maintain his past victory. Therefore, if the rider is disposed to lose his equanimity in such circumstances he had better transfer the colt to the hands of some one in possession of a better temper and a cooler head.

HOW TO CHOOSE A GUIDE.

As soon as the familiar "Tally-Ho" is sounded the rider should get immediately in the wake of some friend whom he knows to be a judicious follower and well mounted. He should avoid, if possible, following any one except the huntsman and whips in pink and white habiliments—not that the colt will be frightened for such extravagant colours, but because many gentlemen who wear pink object to be utilised as "pace-makers." A straight rider, however, can generally be selected from amongst the wearers of less gaudy apparel, for, as previously pointed out, a straight cross-country rider is not dependent on the colour of his coat. The rider should endeavour to maintain his ground within twenty or thirty yards of his chosen guide and keep the colt well in hand at his fences, while he should collect him well together and give him plenty of time in crossing the "plough."

HOW TO PUT THE COLT AT HIS FENCES.

The rider must be careful to give the colt abundance of time at his fences, and should encourage him to negotiate them without exciting him. If, as very frequently occurs, a cluster of riders are drawn up in the corner of a field waiting until an awkward gate is opened, or waiting their turn to jump through a narrow gap in a fence, the rider should pull the colt up a hundred yards away and walk him quietly forward. No good purpose is served by galloping recklessly up amongst the other riders and then having to wait until a chance arrives of jumping over, besides some horses might refuse and this would be a bad example for the colt. The rider must studiously avoid getting mixed up in a crush because the colt may kick out and injure the horse of another rider, while, on the other hand, some vicious thoroughbred "weed" may "shake hands" with the colt with that ready dexterity and unpleasant force peculiar to the temper and heels of the breed.

HOW TO MANAGE A DOUBLE FENCE.

When an unusually awkward fence intervenes—a double fence with a ditch, or ditches, for instance—the rider should teach him to accomplish it at a walk so that he can plant his feet firmly on the ground between the fences in order to collect himself for his second spring. If the rider push him fast and furiously at a fence of this nature he may attempt to jump it at a single stride, and the chances are that

the rider will arrive at the other side a few seconds before the colt, and his position as he kisses the cold lips of mother earth will not be the most enviable or inspiring in the world, whilst he may very easily break his neck and that of the colt into the bargain.

HOW TO GET OVER DANGEROUS PLACES.

The rider should never miss a chance of educating the colt to lead over difficult and dangerous places such as a gap in a stone wall nearly level with the ground. He will manage it with far greater safety than if he attempt to ride him over it. In dismounting, the rider should draw the snaffle rein over the colt's head and push the double of it through the near ring of the snaffle; he will thus transfer the limited power over him from behind his ears to his mouth, and in consequence will guide him with much greater facility.

DANGERS OF HUNTING GATES.

The rider must exercise extreme caution in going through narrow hunting gates so as not to catch the posts on either side, because if he became entangled he might sustain severe bruises to his limbs. When any accident occurs at a hunting gate the colt will acquire a very dangerous habit of bolting through at a bound—just the same as bolting out of harness when unyoking, which is generally the result of a fright occasioned in most instances by pure carelessness.

HOW TO CROSS STREAMS.

In fording waters the rider should make a point of following some one else at a respectable distance, and if it become unpleasantly deep he can change his course without getting a ducking, which is not particularly enjoyable on a November morning. Of course it must be borne in mind that the rider cannot always have his own way, and occasionally he may be placed in the same position as the two ladies who asked a half-witted lad if he would be obliging enough to go upon the ice to test its strength before beginning to skate, but who, looking up with a knowing smile, replied—"Na, na! ladies aye get the preference." Therefore, if, like the ladies on the ice, the rider has to take the initiative in fording water he should always look out for a shallow with an easy landing-place and should keep the colt's head inclined up the stream.

HOW TO AVOID MARSHES.

The same directions may be followed in regard to bogs and marshes. An experienced eye can generally detect them from the smooth-looking verdure which covers the hidden and treacherous swamp; but if the rider should be caught unawares he must dismount at once in order to relieve the colt of his weight, and assist him out as speedily as possible. He should be careful not to turn the colt too abruptly or he will twist and sprain him to a dangerous degree, indeed, it is an easy matter for the colt to break one

or more of his legs in his frantic plunges to relieve himself.

THE COLT SHOULD BE TRAINED TO STOP WHEN HIS RIDER FALLS OFF.

If the rider meet with a "spill" the colt should be trained to stop for him as fully described in a former chapter. It is a splendid qualification for a hunter to possess, and if well trained when young he will not be likely to forget it. The writer has seen a mare trained so perfectly in this excellent accomplishment that at sixteen years of age she not only stopped but returned for her rider who came off at a fence, though she had not been hunted since she was a four-year-old; thus, twelve years later she faithfully and unerringly practised the perfect education of her youth.

WHEN TO DISCONTINUE THE RUN.

The rider must exercise special prudence in discontinuing the run, not when the colt has got enough but *before* he has got enough. The rider should *always* let his anticipation of the colt's fatigue precede the unmistakable, or even slight indications of it, and if he miscalculate the colt's stability by under-estimating it he will do him no harm; but if he follow till the colt display the usual symptoms of weariness he may tire and "bottom" him and he may not be as fresh again for that season, indeed it is doubtful if he will *ever* overcome a proper

"bottoming." The rider must never permit himself —even in the maddening delight of a dashing and brilliant spin—to give the colt a really hard day's hunting until he is five years of age, when he has attained the age of horsehood and comes within the term "made hunter"; and if the method of training him which has been advocated is adopted and practised throughout it will be found to work with signal and uniform success. The result will be a "made hunter" perfect in the varied work of the hunting-field in any district, and if carefully ridden and kindly treated he will generally become as passionately fond of hunting as the keenest and most enthusiastic rider. Thus, in hunting as in other classes of work, kindness triumphs over cruelty, and the results of the latter will not compare with the former in one single case for rider and horse combined.

Whilst it is necessary, as already mentioned, to be careful not to gallop a colt too far or too long, it is equally essential that he should be ridden by a light-weight rider in possession of light hands and a cool head. These latter qualifications mean much for the future welfare of the colt. At the same time, however, it is not denied that some men of greater weight can ride lighter than others who are physically lighter, in consequence of their fine balance and feeling of the colt. On paper this appears somewhat paradoxical, but it is easily detected in the hunting-field by the keen eye of an experienced horseman.

CHAPTER XXVII.

COLOUR OF HORSES.

To anyone who has studied zoology, the variation in the colour of horses has always been a most interesting problem. Broadly speaking, there are seven standard colours amongst British horses, viz. :— browns, bays, blacks, chesnuts, greys, duns, and roans. These are mentioned in the order in which they prevail numerically. Piebalds, skewbalds, and whites can scarcely be classified as standard colours, but will be briefly considered later. In each of the standard colours enumerated, there are various intervening shades extending from the lightest to the darkest hue. These extremes practically merge into other colours, and in many cases it is difficult to determine where they begin and where they end. The colour of horses is believed to be determined by the pigmental colouring (melanin) present in the blood and skin, and, in passing, it is interesting to note in this connection that the repulsive disease known to veterinary science as melanosis, only attacks light-grey and white horses, in consequence of the absence or unequal distribution of melanin.

Whilst this law holds good with horses, however, it is not so with cattle, as melanosis may attack the latter of whatever colour ; thus it would appear that bovine pigmentation is less equally distributed and fixed than equine pigmentation. The white horses referred to here must not be understood as albinos, but rather as faded or reverted greys. Generally speaking, dark-coloured horses possess more melanin than light-coloured ones, and are believed to be generally hardier in consequence.

Browns and dark browns are generally beautifully dappled over the shoulders and quarters. Whether this dappling, apparent miniature moons in shadow, is inherited from the striped ancestors of the horse, or is caused by a gradual arrestment of pigmentation, it is difficult to say. Perhaps it may be fairly reasonable to assume that the former is the cause and the latter the effect, though they both act in undefined conjunction. Since domestication has rendered unnecessary the broken colouring essential in the "struggle for existence" in a wild state, it does not seem a very unwarrantable hypothesis to assume that ancestral striping has been slowly and gradually abandoned for whole colours.

All faculties, mental and physical, that are not cultivated by general use, cease, in time, by a gradual process of deterioration to be of definite service, and become functionless—individually and collectively—thus, when the problem of self-preservation became less acute under a circumscribed environment due

to domestication, these distinctive ancestral stripes might gradually merge into whole colours, and a solidifying pigmentation might accompany the process.

The broken colours of wild animals greatly help to screen them from the attacks of other animals ; for instance, Professor Cossar Ewart, F.R.S., in "The Penicuik Experiments," points out that a zebra, twenty or thirty yards distant, can scarcely be seen in a star-light night in consequence of the absence of outline caused by its vertical stripes. On the other hand, carnivorous animals, such as the tiger, are similarly broken coloured, which is no doubt a beneficent provision of nature to aid them in procuring their prey more easily, so that it is reasonable to infer that the instincts of animals in nature are much more acutely strung than those of animals that are necessarily dulled by domestication.

Bay horses are generally held in great esteem, particularly if they possess the orthodox "four black points." In hardy sorts the manes, tails, and legs, from the knees and hocks to the feet, should be black ; when bay hairs are interspersed in the manes and tails, and the legs are tinged with bay to the feet, horses thus coloured are generally considered soft. Although there are exceptions to every rule, this description is a pretty accurate one, and may be relied upon as a safe guide in the purchase of bay horses. Faint dappling appears in richer-coloured bays, and, indeed, in horses of most colours.

Black horses, of a deep shade, generally possess good constitutions and calm temperaments, and, as a rule, are excellent workers. Those of a dingy hue, merging into a sort of blue-dun, are generally less reliable ; many of the former are dappled, but very few of the latter, so that here, as in other colours, dappling may be considered as an indication of hardiness.

Of all colours chesnut is perhaps the most widely varied, because any colour between very light dun and dingy black may pass for chesnut. It is believed that chesnut is a composite colour produced by black and grey. A typical chesnut should be whole-coloured to the feet, with the mane and tail a shade darker than the body and legs. Horses with light-coloured manes and tails, and tapering lighter to the feet, are often soft constitutionally and bad tempered. Chesnuts, more frequently than any other colour, possess extravagant blazes of white on the faces and legs, which are very conspicuous. White fore legs to the knee are supposed to be weak, owing to the absence of melanin. Occasionally they have white blotches on the belly and sides, and nearly all chesnuts have a few dark chocolate spots, varying in size from one to three or four inches in diameter, about the quarters. These spots are easily distinguished from dappling, and are doubtless caused by clustered or unequal distribution of pigmental matter ; they appear very prominently just after horses are newly clipped. Shadowy dappling appears on chesnuts also, but it is not so marked as on browns and blacks.

There are several varieties of greys, amongst which stand out prominently iron greys, dapple greys, and speckled, or, as they are familiarly termed, "flea-bitten" greys. The first shade consists of alternate hairs of white, grey, and black, and there are many tints from very light to very dark. All grey horses become lighter in shade as they grow older, many getting practically white when advanced in years. Dark dapple greys are very beautiful, the dappling in this variety being much more pronounced than in any other colour. As a rule, the heads of grey horses are lighter coloured than other parts of their bodies. Nearly all grey horses are pleasant tempered and good workers. Their conspicuous appearance and their susceptibility to stain with dirt, as previously pointed out, are the chief objections to them, in addition to their liability to contract melanosis.

Dun horses are believed to possess the base colour of their early ancestors, the traces of striping being more apparent on duns than on any other colour. All dun horses possess the dorsal band and leg stripes, and some of them have also shoulder and frontal stripes. Most foals are a kind of dun at birth, which appears to favour the theory that dun was the general colour of the progenitors of the horse. As a rule, dun horses have only middling confirmation, but they are generally sound and hardy, and it is held by some authorities that they are exceptionally sure-footed.

There are three distinct shades of roan—blue, bay, and chesnut. Roan is also believed to be a

composite colour, but one which is very much older than chesnut. Unlike chesnuts, few roans have white markings, which is a great feature in their favour for matching purposes in harness. Another distinguishing characteristic of roans is that their heads are generally darker-coloured than their bodies, which is exactly the converse of greys. Roans, especially blues and bays, may be classed as good-tempered, docile horses, and are possessed of excellent constitutions.

Large white blazes in the faces of horses, and white legs up to the knees and hocks, are not desirable, and it is well to discourage their production as much as possible. A white star in the forehead and a pair of white pasterns behind, however, rather tend to brighten up the appearance of a horse, but they are generally in the way when matching is considered. A strange peculiarity is that white markings predominate on the near limbs, the near hind leg being white more frequently than any of the others.

Piebalds and skewbalds may be briefly considered together; the former are black and white and the latter bay and white. As the colouring is never uniform, one side always differing from another on the same pony, they are not desirable from any point of view, though some people with extravagant tastes prefer them. They do not often appear in the larger breeds of horses, but are often fairly plentiful amongst ponies.

White horses proper, those with pink skins, are

not really British, but are believed to be of Flemish origin. They are very docile, easily trained, and figure prominently in circuses. The tender pink skin suggests delicacy of constitution and seems better adapted to warm than to cold climates.

In addition to the majority of foals being dun-coloured at birth, they have *apparent* striping over the rump and forehead. In certain lights and at certain angles these appear to be actual stripes, but a close examination will reveal the fact that they are largely fanciful. This subtle colouring is produced by the ridges and waves in the coat, because, when the hair is pressed down and kept flat they disappear at once, but immediately the hair is released they reappear. Too much importance has frequently been attached to these water-stripes by zoologists in endeavouring to connect the first coat of the foal with its remote ancestors. As a matter of fact these subtle ridges naturally disappear with the shedding of the first coat, and, as a rule, are never again seen. There are exceptional cases where faint stripes are retained for several years, apart from the deeply-marked lines peculiar to dun horses, but to assert that all foals possess actual stripes at birth is a delusion resulting from a too superficial examination. The colour of a foal is no indication of the colour it will be when it has attained the age of horsehood.

Most horses when newly clipped are a different colour, which is explained by the base of the hair being a different shade from the ends. Generally

speaking, horses clip out lighter coloured than they appear in their natural coats, and the difference is sometimes wonderful, still, with the exception of very rare cases, they generally clip out to a colour strongly savouring of dun, with all its intermediate shades between very light and very dark.

The old adage that "A good horse is never a bad colour" contains precisely the same amount of truth as its converse, viz., "A bad horse is never a good colour." By this definition the quality of colour is put at a discount as against the capability of the horse itself. Exceptions, however, are necessary in order to prove rules, and, when a number of horses are passed through hand, and a faithful record kept, it will be found on the average that good horses are generally good coloured.

CHAPTER XXVIII.

STABLE MANAGEMENT.

It is a generally recognised fact that unless horses are properly managed in the stable they cannot reasonably be expected in the field, or on the road, to do their work so well, look so nice, or remain so healthy as when thoroughly well attended to generally.

REGULARITY IN FEEDING.

In the matter of feeding, regularity should be aimed at. Horses should be fed as regularly as the clock goes round, or we can never have fresh, well-thriven horses. A horse that is fed regularly will be in better condition on three measures of corn in the day than one that is fed irregularly will be on four. He knows exactly when his attendant will feed him, and does not weary for his meals; whereas, a horse on the other hand that is fed at any and all times is never really satisfied, and will weary his life out waiting for his careless attendant and his meals. Irregularity in feeding is also a productive cause of many stable vices.

QUANTITY OF FODDER.

No more straw or hay should be placed before a horse in the morning than he can eat cleanly up in an hour. A less quantity should be given at mid-day, and in the evening he should never get any more than will reasonably serve him over the night. Some men, through pure ignorance of a horse's requirements, will fill his rack to the top, and it may not be cleanly eaten out for a week, ay, and in many cases, a month. The rack is *always* kept full. It is filled to overflowing at night, and in the morning, before it is half empty, it is filled again. Thus the horse, in a great measure, is always eating old soiled fodder. When hay or straw has been twenty-four hours in front of a horse its freshness and sweetness are reduced, if not absolutely destroyed, by his warm breath going continually through it. As horses vary so much in size and appetite, it is difficult to lay down any fixed quantities for their consumption; these can best be regulated by their attendants.

Generally speaking, agricultural horses will consume about eighty to one hundred and twenty pounds of hay per week, and about fifty-six pounds of oats. In addition to this a few roots may be given—carrots or swedes—which are very conducive to the health of horses, only care must be taken not to give them too many at a time. Eight or ten fair-sized carrots twice a day, or two average-sized swedes, are suffi-

cient. Potatoes should never be served to horses raw, but should always be well boiled. In the former condition they are productive of scouring, and are highly dangerous; when served in the latter way they form a very safe, nutritious meal. When horses are doing extra heavy work they should get fifteen per cent. of beans amongst their oats, and whilst we do not much approve of maize, twenty per cent. added to the oats will generally reduce the cost of feed very considerably.

QUALITY OF FOOD.

It is almost needless to impress upon readers the necessity of using horse-feed only of the best quality. Hay should be got green and free from dust and mould. Inferior hay, which has been heated, is generally full of dust, and when served to the horse may produce an irritable cough which may easily lead to a permanent defect in his wind. Hay that is dry and brittle should also be avoided, as it is generally deficient in nutrition, having been dried too much before being stacked. Most of its feeding properties have been evaporated into the atmosphere in consequence of lying too long on the ground exposed to the rays of the sun.

The same remarks apply to oats, barley, beans, and all other commodities with which the horse is fed. Oats should always be given crushed. When crushed they are more easily masticated, especially by horses with bad teeth, and are consequently more

easily digested. Many greedy horses will bolt their oats whole, consequently, when they are improperly masticated, they do them very little good. This is soon discovered by the quantities of whole oats which are to be found in their excrement. A little chaff mixed with the oats is a good preventive when crushing is inconvenient. It prevents horses bolting the corn whole, and induces them, more or less, to chew it. With all classes of horses used for slow work it is advantageous to chop the hay by means of a hay-cutter. This system of manger feeding is very general among collieries, and is also being adopted on farms to a very large extent. A great saving of hay is effected and the expense of feeding is correspondingly reduced. When hay is scarce and dear, oat straw may be mixed with the hay in about equal quantities. This makes a capital feed, and horses are generally very fond of it.

WATER.

The importance of a good supply of pure water can scarcely be over-estimated, and, if possible, it is preferable to have it soft rather than hard. When a horse is in health he should be allowed as much water as he cares to drink, with one exception. The exception is when he is brought in from a journey tired and heated. In such circumstances he should only be given eight or ten mouthfuls of water, and it is safe to raise its temperature to sixty-five or seventy deg. Fahr., simply by adding a little hot water. After

the horse has thoroughly cooled down he may be given a bucketful of water. The horse should have the offer of water at least four times a day when a tank is not fixed in the stall beside him. The quantity of water a horse will drink per day fluctuates according to his constitution, the feeding he gets, and the nature of the work he is doing. From two to three bucketfuls is about an average quantity for an average horse at average work. Dirty, stagnant water should never be given to a horse. It is generally full of putrefying organic matter and swarming with multitudinous animalcule germs, indeed, the condition of the one is a necessity to the other—hence the importance of using only pure water for drinking purposes. Horses should never be allowed to drink from ponds nor standing water of any kind; nor should they ever be ridden through water, as they often are, with the object of washing the mud off their legs when they are brought in dirty from a journey. Rough-legged farm horses when treated in this manner must necessarily stand wet over the whole night, and, besides being productive of chills, it is instrumental in developing grease, cracked heels, weeds, and several other diseases.

GROOMING.

The horse should be groomed as regularly as he is fed, for a well-groomed horse, as in the case of feeding, will thrive better on three feeds of oats per day than a badly-groomed one will thrive on four.

When a horse is brought in wet and dirty he should be washed over, scraped, and dried. The sheets should be placed upon him and his legs rolled in flannel bandages. Of course agricultural horses can only be well rubbed down to make them as dry and clean as possible. A horse should never be left to stand all wet and mud-bespattered until the dirt dry of its own accord, or "mud-fever" will be a certain result of such neglect. The best way to produce a glossy coat on the horse is to rub him well with an ordinary body brush, always in the same direction that the hair lies, then he should be wisped with slightly-damped meadow hay, and lastly with a smooth, soft cloth. The rubbing produces heat, which promotes circulation, and it is generally beneficial to health. A little linseed given internally will materially assist the groom's efforts externally in the production of a sleek, shining coat. The curry-comb should never be used on higher-bred horses other than in simply cleaning the brush, because when heavily applied to the horse it has a tendency to break and open his coat. The horse should be thoroughly well groomed over at least twice a day. Higher-bred horses should be turned in the stall and well cleaned about the front, particularly under the mane, which some grooms are inclined to neglect if not watched and checked for their negligence. As soon as this is done, he should be turned up in the stall and his body and hind quarters rubbed in the same manner. Finally, his mane and tail should be

combed, then brushed with a damp brush, and his eyes, nose, and anus sponged clean and his feet picked out.

NECESSITY OF CLEANLINESS.

The stall should be well bedded at night with straw, well shaken up on either side to prevent the horse damaging himself if he should lie down too near the travis, whilst a liberal allowance should be spread immediately in front of him in order to keep his knees as far from the hard floor as possible. Any kind of straw is preferable to the best moss litter that can be obtained. The latter is too absorbent a material. It absorbs the urine, and it is difficult to separate the excrement from the litter, consequently the horse is constantly standing on damp, filthy material, the result of which may be running thrushes, grease, and other kindred diseases. All the walls of the stable should be kept scrupulously clean. If tiled, they can be frequently washed, and if only plastered, like ordinary farm stables, they can be regularly swept down and limewashed at least twice a year. In order to economise litter, the bedding should be well shaken and the wet separated from the dry, whilst the stall should be well swept out every morning. It is a good plan to sprinkle a little lime over the floor occasionally, as it has a tendency to deodorise any noxious vapours that may arise. All the gutters leading to the drains must be carefully attended to, and if possible flushed with water every day. All

the sash-windows should be opened widely in the morning as soon as the groom enters the stable, so as to let a current of fresh air sweep through the building. This will accelerate the passage of the heated air emitted from the horses through the ventilators in the roof, which, being lighter than ordinary air, always ascends.

HARNESSING THE HORSE FOR GOING OUT.

In bridling a horse after he has been harnessed, he should not be turned in the stall until the bridle is securely fixed upon him. Grooms sometimes train horses to wheel round as soon as the headstall is taken off, no doubt under the impression that it is clever, but, undoubtedly, accidents occur by horses rushing out, getting kicked by others, and knocking the skin off their quarters by turning abruptly in narrow stalls. When a horse is turned in the stall ready harnessed to go out, he should always be properly secured by pillar chains with safety hooks on either side. The chains should be long enough to give him sufficient head without being so long as to permit him getting forward past the pillars; while they should be fixed high up, so that should he become restless and begin pawing he will not get entangled by putting his legs over the chains. His feet may be oiled lightly over, though some people prefer to have them washed clean with water. In dry, dusty weather the latter is perhaps preferable. A horse with any white on his legs requires more

grooming than one with "black points." The white parts must be washed with soft soap when the horse is dressed in the morning, and he will always be clean when wanted. The last thing to do before taking the horse out is to carefully comb and lightly water-brush his mane, which will always give him a smart appearance.

CLIPPING AND SINGEING.

Clipping horses in winter when their coats are rough is a decided advantage both to the horses and their attendants. There is no fixed time for clipping, much, of course, depending upon the thickness and setting of the coats of different horses. A clipped horse is able to do a great deal more work than an unclipped one. He will keep fresher, grow more vigorous, and is altogether in better spirit than a horse carrying his thick winter coat. Many a horse that cannot be kept in condition previous to clipping will often grow too big and fit for his work after his coat is removed. The legs of hunters should never be clipped, because when hunting for a long day over a wet, dirty district, the legs in consequence are liable to strike out in "mud fever," which detracts from the appearance of horses, and is a disease which takes a good deal of time and trouble to cure. The hair should be left on the legs from six to eight inches above the knees and hocks, and it should slope upwards from rear to front (Fig. 41). The hair should also be left on the back of the horse below the saddle,

which gives it a more natural feeling, and it is not so likely to chafe his back as when clipped bare like other parts of his body. Carriage and harness horses may be clipped down to the feet, and when brought in from a dirty journey they must be cleaned

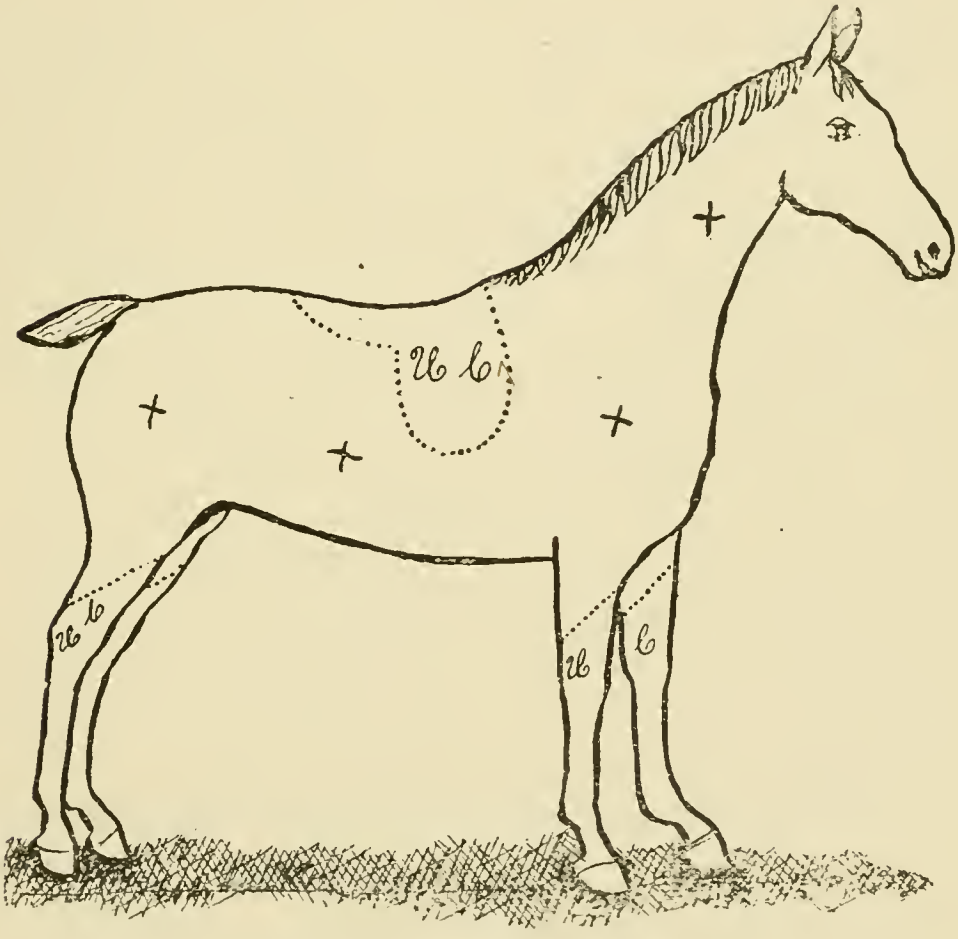


FIG. 41.—HUNTER CLIPPED.
(U C, unclipped portions. X X X X, clipped portions.)

and dried at once. Farm horses, and work horses of all kinds, should only be clipped "half-rib," which means that the hair should be left upon their backs down to the turn of the rib, and from the knees to the

feet (Fig. 42). Farm horses have often to stand for long intervals in the cold; leaving the hair over the back keeps them warm, and, when the clipping leaves off abruptly at the round of the rib the water is carried clean off during rain. This style of clipping

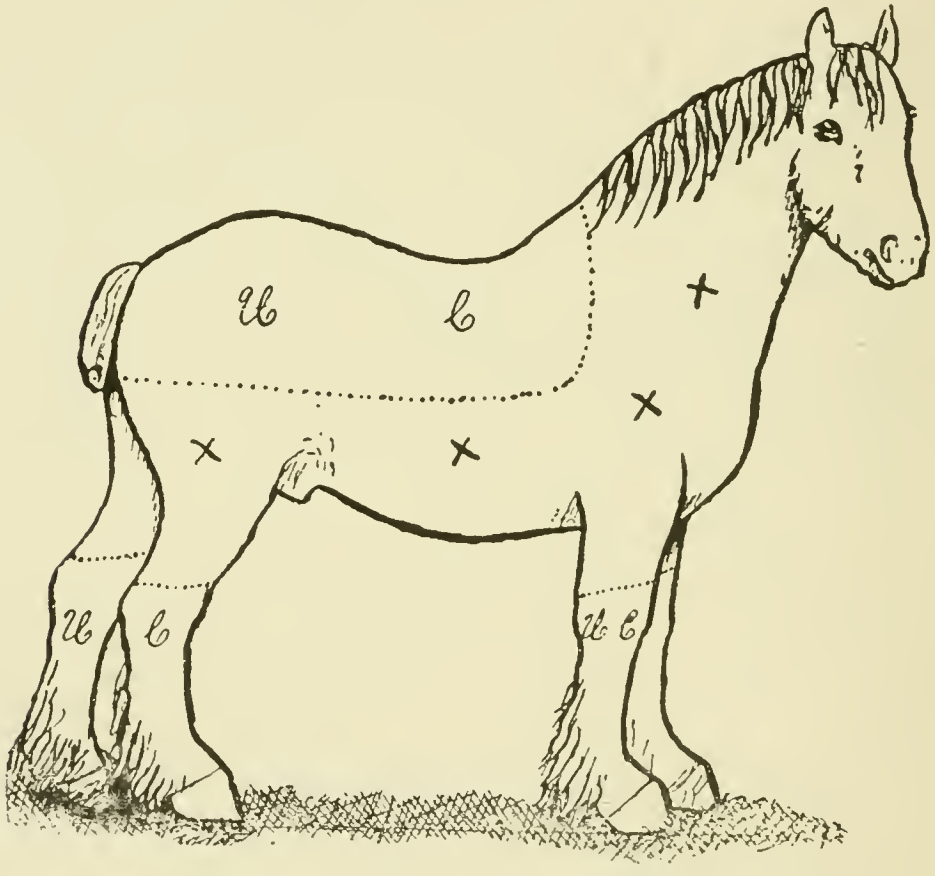


FIG. 42.—WORK HORSE CLIPPED.
(U C, unclipped portions. X X X X, clipped portions.)

does not improve the appearance of horses, but safety and comfort should always be more regarded than appearance. Hunters and harness horses may be clipped frequently during the season, but once is generally sufficient for agricultural and all other kinds of heavy work-horses. Singeing after clipping is a

good plan. It is a simple means of taking off any long hairs the clipping machine may have missed. Immediately after singeing, light horses should get a good gallop so as to slightly sweat them, then they should be washed over, and thoroughly well dried. When the natural coats of horses are removed, it is necessary to put on artificial substitutes, and this, of course, is managed by clothing, which should be regulated in the thickness and weight according to circumstances. Sheets should never be put on when horses are brought in perspiring. They should be allowed to steam for ten minutes, during which they should be well rubbed down, and after they have ceased to steam the sheets may be put upon them.

STABLE UTENSILS.

Stable utensils, such as pitchforks, grapes, shovels, etc., should never be left standing loose about the stable. A horse may get loose over night, and in coming in contact with a pitchfork, he may wound himself very badly. These remarks are chiefly meant to apply to farm stables, whose fittings are not generally so up-to-date as higher-class stables. There should be an enclosed recess in the wall behind each horse for the safe disposal of all harness belonging to him, in which all the necessary utensils can be placed at the same time. Horses that are methodically and kindly treated in the stable will be more likely to render better work both in the field and on the road.

CHAPTER XXIX.

STABLE CONSTRUCTION.

The construction of stables is a matter of first-rate importance, and, as the health of horses generally depends to a great extent on the class of stables they occupy, too much prominence cannot be given to the advantage of having them as nearly perfect as possible. Existing stables are more difficult to modernise in the way of sanitation, lighting, and ventilation, than to provide these necessities in the erection of new ones.

When originally built on ill-chosen sites, and adjoining other buildings, as they frequently are on farms, the difficulties of improvement are materially increased. The most that can be done to existing stables, without entailing a large expenditure of capital, is to improve their sanitation, lighting, and ventilation. Whilst improved lighting and ventilation, however, are comparatively easy of accomplishment, the question of improving the sanitation is a more difficult problem to solve. Old walls that have been built without a damp course are thoroughly soaked, and it is simply impossible to cure them by laying new drains or anything else.

THE SITE.

When practicable, a stable should always be built with a southern aspect, as it is warmer in consequence of the direct rays of the sun falling upon it, and the beneficial influence of sunlight, and ordinary diffused light, in the interior of stables and all other buildings occupied by animals, is an acknowledged scientific fact. Of course, in choosing a site, much will depend on the disposition of the ground, and local circumstances will require to be taken into account. It is generally advantageous to have the stable detached from other buildings, as it is more easily lighted and ventilated.

DRAINAGE.

Some soils are much more porous than others, still, to insure dry, comfortable stables, all require to be thoroughly drained.

A drain should run round the exterior foundation of the building at a depth of at least four and a half feet, and the pipes should be laid two feet from the edge of the building. Ordinary four-inch drain-pipes are the kind to use. The interior drains should be four feet in depth, and must have no connection with the other drains whatever. All interior drains must be properly trapped to prevent the return of any deleterious gases that may generate in them, and the drains should be carried a good distance from the stable to the liquid tank, with a good fall so that no

solid particles of excreta may lodge about them. The water from the spoutings of the roof should be collected, if water is scarce, and utilised in flushing the sanitary drains, the pipes of which should be made of glazed stone ware, and properly cemented at the joints in order to prevent the escape of any volatile or gaseous properties. The sanitary drains should be laid six inches deeper than the other system of draining, so that if any leakage should accidentally occur, no contamination would follow. No sanitary drain system is complete without an abundant supply of water with which to flush the pipes at least once daily.

FLOORING.

The floor of the stable should be composed of non-absorbent materials. Ordinary Portland cement makes an excellent floor, as it is quite impervious to wet and entirely obstructs any noxious emanations that may arise from beneath, whilst its surface is hard and smooth, which renders it unfavourable to the accumulation and retention of dirt of any kind. It should be laid on a bed of broken whin-stone, the lower stratum of which should pass through a three-inch mesh, whilst the stones of the upper stratum should not be larger than pass through a one-inch mesh. The lower and rougher stratum should be laid to a depth of six inches, the upper to a depth of three, whilst the surface covering of cement should be from two-and-a-half to three inches in thickness. It is sometimes recommended to mix the cement with

chips of brick or small stones to prevent the floor being slippery, but this roughens the surface, which adds to the difficulty of cleanliness, and it does not wear nearly so well. In fact, rough-shod, heavy agricultural horses very soon break it up into holes, and when once broken the whole floor very soon disappears.

STALLS AND DAMP COURSE.

A better plan is to lightly groove the surface. A straight groove from the gutter behind should run directly up the centre of each stall, and diagonal grooves should be let into it from either side (Fig. 43.)

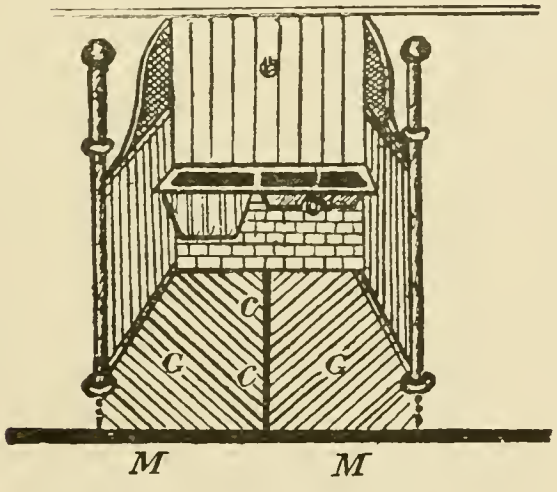


FIG. 43.—GROOVED STALL.
M M, Main Channel; C C, Centre Channel; G G, Grooves

The grooves should be light and placed four inches apart. The cross gutter should be semi-circular, four inches wide, and two inches deep in the centre.

In order to secure comfort for horses, stalls should be six feet wide and ten feet long, and should be as level as possible, consistent, of course, with a proper declivity for the removal of the urine. Stalls should fall away about two inches from the front to the cross gutter, and they should slope an inch to the

centre from either side. When stalls are placed too much on an incline they are a continuous torture to horses, whether standing or lying; and scarcely anything will cause horses to stand over in the knees sooner than an undue elevation in front of the stalls. The floor in rear of the gutter should be six feet wide, and should be grooved in diamond fashion as horses are less likely to slip than on square grooves, and they should be the same depth and distance apart as the stall grooves.

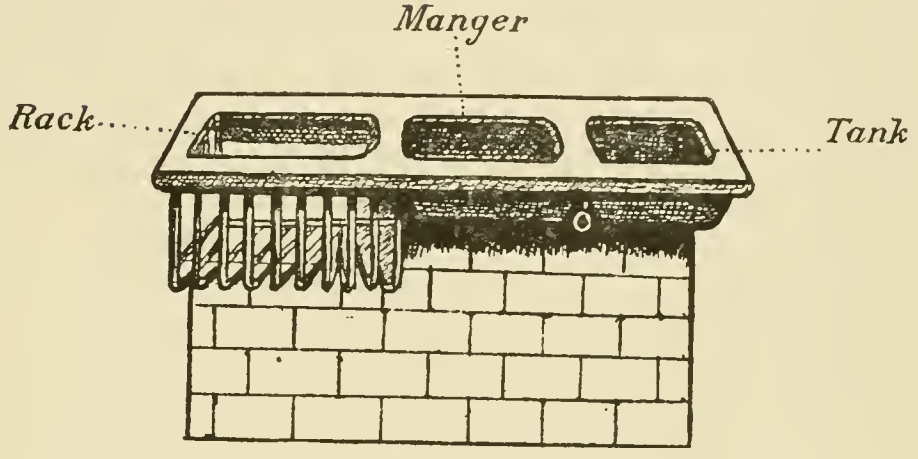
A damp course must be laid into all the walls—inside and outside alike—eighteen inches above the ground level. This can be done by laying roof slates horizontal, along with a light layer of cement. The interior flooring and the damp course should always be continuous, *i.e.*, the cement should be carried down the inside of the wall from the damp course to the floor at a thickness of an inch-and-a-half.

INSIDE FITTINGS.

Combined mangers with feeding-box, tank, and rack are probably the best. They should be strongly made of galvanised iron. The edges round the top of the manger should project inwardly about two inches which prevents horses pushing their corn over, as a number of them acquire the habit of doing.

High racks are a means of accumulating dust and dirt, which fall about the heads and manes of the horses; and sometimes hay seeds get into their eyes, which cause a lot of suffering, hence racks placed on a

level with the mangers are a great comfort to horses. (Fig. 44.) Two rings are fitted to the mangers for tying the horses to, and other rings should be placed



Fig, 44.—Rack, Tank, and Manger cgmbined.

in the wall, about four feet above the mangers in front of the horses for tying their heads up when necessary.

The stall partitions should be five feet high at the pillars behind, and may rise in a modified swan-neck form to a height of seven and a half feet at the front, and the tops of the partitions may be covered with half-circular hoop iron, which prevents horses wearing them down by biting them. The length of the partitions should be about ten feet, and it is preferable to have them closely match-lined.

The pillars should be strong, firmly sunk into the floor, with rings and chains attached for fixing horses when turned in the stalls. In farm stables, the pillars should be carried up to the cross beams which method supports and gives them greater stability.

A continuous recess with sliding doors should practically run the whole length of a farm stable, in which harness and stable utensils generally are kept. By this method the harness is out of the reach of dust, and grapes and forks are very dangerous implements to be left standing about a stable, for, even with the greatest care, a horse may get loose occasionally and injure himself very seriously.

LIGHTING.

The question of lighting, as already pointed out, is one of the utmost importance. Dark stables are a prolific cause of shying, because when horses are taken into broad daylight they see things only through a distorted vision, and will consequently shy at purely imaginary objects. It is scientifically ascertained that darkness and dampness, besides being favourable to the accumulation of dirt, are also favourable to the development of disease germs. In dark, ill-ventilated stables the woodwork will be found mouldy and wet. The mould or fungus *(Eurotium repens)*, which thrives on damp saturated wood is of a most unhealthy order, and develops and propagates spores by millions. These insanitary conditions favour their development, and myriads of microbes are constantly being generated, to the detriment, not only of the horses, but also of their attendants.

Windows with sliding frames should be placed in the south and end walls of the stable at intervals of six feet, with hinged sash-lights intervening between

each window, and placed in the walls pretty near the eaves.

Two rows of plate-glass roof-lights should run along either side of the roof at intervals of six feet apart. They should not be placed opposite each other. Those on the north side should be placed intermediate between those on the south side, both vertically and horizontally, and by this arrangement a properly-diffused light will be obtained all over the interior of the stable. In stables where the roofs slope at the ends, the same system of roof-lights should be observed; but if the gables run up perpendicular to the top, hinged sash-lights may be let in all along the gable ends at a good height from the ground, in addition to the windows already described. (Fig. 45.)

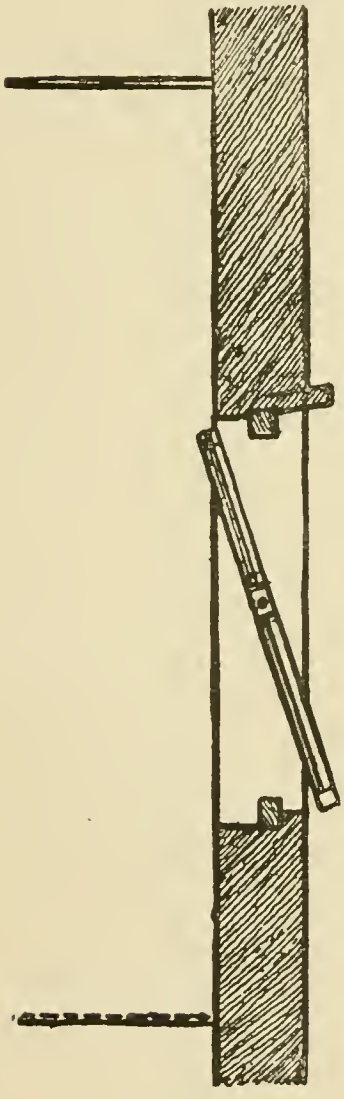


Fig. 45.
Hinged Sash-Light.

Of course, the antiquated system of lofting in stables must be entirely abolished, as it prevents both lighting and ventilation; and hay lying above horses in a loft for any length of time becomes very unwholesome by the vitiated air emitted from the horses constantly passing through it. Stables with more than six stalls should have two entrance doors, not neces-

sarily for every-day use, but in the event of fire or any occasional emergency that may arise. They should be seven feet high and four feet eight inches wide, and should have hinges near the centre in order to fold

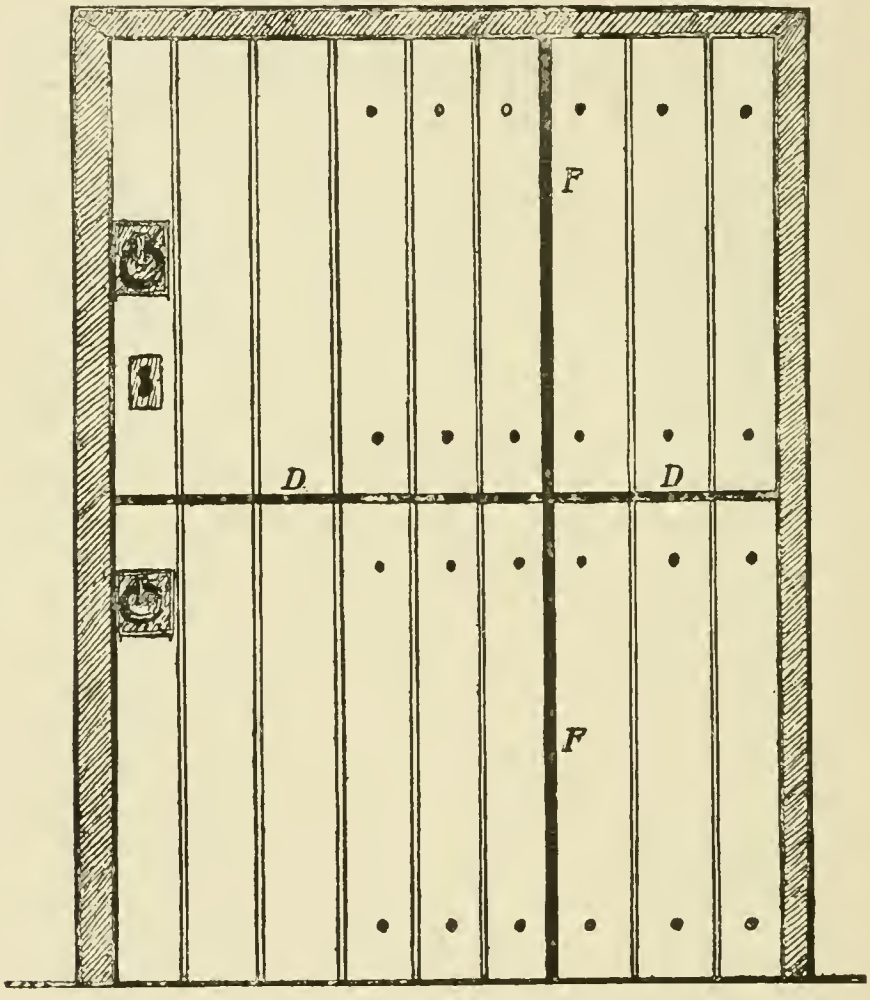


FIG. 46.—FOLDING DOOR.
F F, Folding Hinge; D D, Division of Halves.

round the corner of the wall, while they should be hung at two lengths both for convenience and ventilation (Fig. 46.) It is very important that doors should be wide, so that horses can pass through them quite freely.

When horses get caught in doorways they remember it for a long time, and are apt to rush through them at a bound, which is dangerous to themselves and their attendants.

VENTILATION.

A thorough sytem of ventilation is as necessary in the modern stable as the free admission of sunlight. Very few existing stables are sufficiently ventilated, and half the ailments of horses in the shape of colds and influenza may be traceable to occupying badly-ventilated stables. Very frequently, when the stables are shut up for the night, the coats of the horses will be found damp and the windows and walls of the stable running wet, which shows that the air is contaminated by carbonic acid and organic matter which take the place of the utilised oxygen. With good ventilation this vitiated air would become oxidised, and would pass through the ventilators quite naturally as its tendency is to ascend. In the science of bacteriology it is clearly demonstrated that sunlight and dry fresh air in combination mean death to most forms of microbes, hence the importance of a complete system of ventilation.

INLETS.

Inlets should be let into the south and end walls of the stable six inches above the ground. They may be formed of ornamental iron grating, and each inlet should have a slide in the interior of the stable in order to close it if necessary. (Fig. 47.)

Inlets of the same kind should be placed at a similar distance apart in the walls in front of the horses, immediately under the eaves; whilst the hinged sash-lights in the south wall should hang from their centres, and be opened or closed as circumstances require. The entrance of fresh air at the iron gratings near the ground expels the foul air from the floor of the stable, whilst those higher in the walls augment the current and force it upward towards the roof.

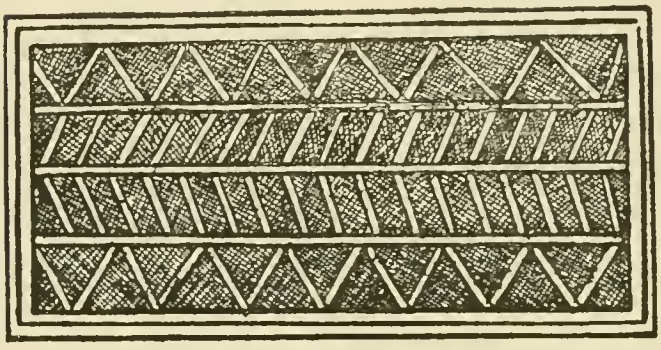


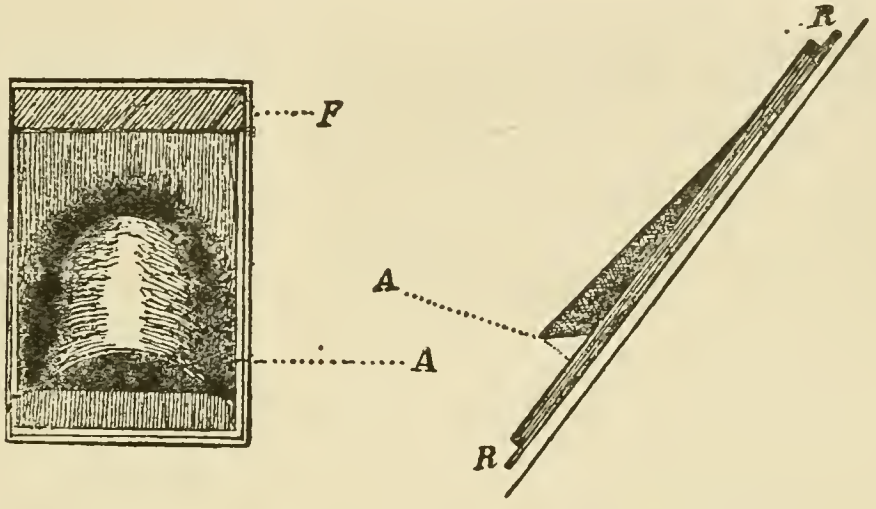
Fig. 47.—Ornamental Grating.

OUTLETS.

In order to liberate the vitiated air outlets must be inserted in the roof, and it is necessary that their collective air space should exceed that of the inlets. Perforated ridge tiles can be had for this purpose, but they are neat rather than effective owing to the smallness of their apertures. In addition to a ridge of this kind, outlets should be let in on both sides of the roof, two feet below the ridge, at intervals of three feet apart. Those on the south side should be placed intermediate to those on the north, and in this way the escape of the vitiated air will be accelerated.

The ventilators should be composed of zinc, semi-

circular in shape, and not more than six inches in width by three inches in height at the centre. The upper portion of the semi-circular cone should project two inches over its base, in order to prevent the



Front View. Side View.

FIG 48.—ZINC VENILATOR.
A A, Projecting Cone; R R, Roof; F, Part beneath Roof Slates.

entrance of rain or snow. (Fig. 48.) By this arrangement cross winds are prevented from beating back the vitiated air, as one side of the roof will always be favourable to its escape.

CUBIC AIR-SPACE.

Stables should be built so that each horse has at least one thousand cubic feet of free-air space, and if twelve hundred can be obtained, so much the better. Of course, it must be understood that a large amount of air-space does not cancel the necessity of ventilation. A small air-space naturally becomes sooner foul than a large air-space, but both require ventilation. The

admission of fresh air and the expulsion of vitiated air must always be in excess of the respiratory requirements of the animals.

BUILDING MATERIALS.

Brick is probably the most economical material for building purposes, but sand, or whin-stone, is more substantial, and looks better. This, however, is largely influenced by local supplies and individual taste.

ROOFING.

Slates are preferable to all other kinds of roofing. They withstand the wind well in exposed places, and are much lighter and neater than tiles, which are very antiquated and are fast becoming a thing of the past.

Corrugated iron, although cheap, is not a good system of roofing for stables, as it is excessively hot in summer and proportionally cold in winter, and the noise occasioned by rain and hail falling upon its surface is very disagreeable to the animals beneath it.

SPOUTING.

Metal, or creosoted wood spouting may be used. From an economical point of view, the one is as suitable as the other, but the former requires to be painted at least every alternate year to keep it in thorough repair. It is neater than creosoted spouting, but it is not more durable.

Down-comers should be carried down the walls in order to convey the water to the roof drains, unless it

is caught into tanks or barrels to be utilised for other purposes. They should be fixed at regular intervals, the distance between necessarily depending on the area of the roof.

EFFECTS OF GOOD STABLES

If stables were built as described above the percentage of shying horses would be reduced to a minimum, and their ailments generally would be correspondingly diminished, because, by the perfect system of lighting, horses would see objects outside in the daylight *as they really are;* whilst the modern system of sanitation and ventilation would give a uniformity of cleanliness and temperature that would increase the vitality of horses to a marvellous degree.

CHAPTER XXX.

THE FEET, DENTITION, AND DESTRUCTION OF HORSES.

No more artificial dresssng should be done to the feet of horses than is absolutely necessary in the way of rasping, cutting, and burning. A number of blacksmiths, in fitting a shoe, will cut and burn the foot alternately until a mere shell of the sole is left. No harm is done by applying a hot shoe to the foot in moderation, as a more accurate bed for the shoe can be obtained in this than in any other way. The wall of the hoof should be well cut away at the toe, as the tendency of the horny wall of the foot is to grow in that direction, but the knife should never be applied to the sole or frog of the foot at all, unless merely to remove any ragged portions that may be partially detached. When a shoe is properly fitted the frog of the foot should touch the ground on a level with the shoe. In this way the frog acts, naturally, as a kind of buffer in reducing concussion on the ground. Nature generally does her own work in reducing the sole and frog by casting off scales occasionally, so that the artificial assistance of the blacksmith's knife in the

matter is quite unnecessary. The enamel of the hoof should never be broken by rasping above the clinches, and as little below and about them as possible, as it interferes with the natural secretions which go to build up and produce elasticity in its structure. The nails should be of an even thickness, very slightly tapered at the points, so as not to enter the wall of the hoof wedge-wise and cause splitting. The ground surface of the shoe should be quite level, and the heels as far apart as the shape of the hoof will permit.

DIFFERENT KINDS OF SHOES.

Shoes for heavy agricultural and dray horses should be made heavy and broad, with low square heels, and clips on the toes and outer edges to keep them in position. Shoes for harness horses should be quite flat, with the exception of low heel on the hind feet shoes.

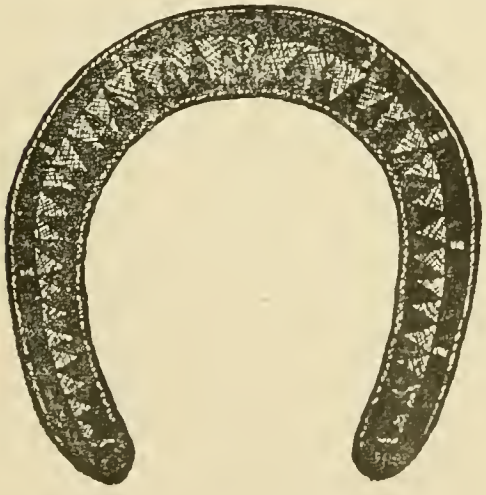


Fig. 49.—Corrugated Shoe.

When pavements and roads are rendered slippery by traffic, the shoes may be corrugated, which is an excellent preventive against slipping. Iron stamped in this way is obtainable just the same as ordinary shoe-bar iron (Fig. 49.)

Hacks and hunters should preferably be shod with ring shoes with very low heels on the hind feet shoes.

The weight of the shoes must be regulated to the size and weight of the horses, and to guard against the liability of over-reaching on soft ground, the front feet shoes should be short, and should slope well towards the ground at the heels. Racing plates, of course, are put upon racehorses, lightness being the chief requirement. For horses with confined action that brush and cut their pastern joints a very simple remedy is effected in the shoeing, as already described in a former chapter. Horses with flat, brittle feet or contracted hoofs must be carefully shod, but it is impossible to lay down hard and fast regulations in the matter, as individual peculiarities must be treated as governing circumstances demand.

Horses should not be allowed to go without a shoe when one is accidentally cast off, as the hoof soon becomes split and broken to such an extent that the shoe can scarcely be replaced. Shoes should be removed, or renewed, at least once a month, a good deal, of course, depending on the extent and nature of the work that horses are doing. When shoes are allowed to remain too long on the feet, corns and other forms of disease generally follow—hence the necessity of frequent and regular removal.

SHARPENING.

Everyone who has any sympathy with horses will recognise the necessity of maintaining their shoes in proper condition for travelling over icebound highways. There are several methods of sharpening in

fashion at the present time, and blacksmiths' shops, generally speaking, are within fairly easy reach of most people. But it is not so much a matter of distance, or inconvenience, that horses are not sufficiently cared for in this matter, as it is of carelessness on the part of their owners. It is difficult to determine which is really the best system of sharpening. A great deal depends on the class of horses and the nature of their work. Screws, fitted in the heels of the shoes, which can be inserted and removed at will, are very convenient and serve the purpose fairly well for saddle and harness horses, but for ordinary draught horses they are not very serviceable, as they have a tendency when horses are pulling hard to become displaced, when they fall out, and, of course, in many instances get lost. The cross-bar insertion slot in the toe of the shoe is also very liable to get dislodged and lost, but it is a clever, ingenious invention, and with increased improvements it might answer the purpose very well with certain classes of horses doing certain kinds of work.

For all-round purposes the ordinary method of sharpening the heels and the toes of the shoes for draught horses appears to be the best and the most efficacious system in vogue ; whilst for lighter classes of horses, steel "frost nails" are quite sufficient in the toes of the shoes.

It is a mistake to make the heels of the shoes too high, as they are dangerous for horses trampling themselves in the stalls, and when turning abruptly.

Occasionally bad effects are caused by the heels of the shoes running into horses immediately between the fore legs when lying. Tumours in that region are generally the result of compression caused by the weight of horses bearing upon the points of the sharp heels when lying thus. High heels, either sharpened or otherwise, should be studiously avoided. They should never exceed three-quarters of an inch, and they can be rubbed up with a file occasionally, which will not necessitate the removal of the shoes so frequently.

DENTITION.

An experienced horseman can generally determine the age of a horse, at least approximately, by a careful inspection of his general appearance, but to arrive at accurate conclusions it is necessary to know something of the science of dentition in order to be able to read his age from his teeth. It is well known that horses have two full sets of teeth, which are classed as colt and horse teeth respectively. The former are practically useless in determining the age of horses, as the last of them disappear between the age of four and five years when the horse attains the age of horsehood. Numbers of colts, however, are sold for working purposes previous to that age, therefore a knowledge of colt teeth is quite as essential as a knowledge of horse teeth.

In order to prevent confusion the twelve incisors are classed as follows :—The two immediately in front

in the upper and lower jaws are called the "firsts"; the next two, on either side, the "seconds"; and the next two, or corner teeth, the "thirds." It may be well to explain here that in order to render the principles of the system more intelligible to the uninitiated, the markings indicating grooves, notches, indentations, etc., shown on the diagrams, are much more distinct than they actually appear on the natural teeth of horses, so that, in addition to a theoretical knowledge, long and careful experience is absolutely essential in order to determine the correct age of horses.

Colt teeth are generally smooth and grooveless, and some foals have the firsts at birth. In the course of four weeks the seconds develop, and at twenty-four weeks the thirds. When the foal is about ten months old all the teeth are level. The teeth have indentations or cups in their crowns, which wear out respectively as they were developed, at intervals of about six months, so that at two years of age the teeth are all flat on their crowns. (Figs. 50, 51, 52. 53, 54, and 55).

In the horse teeth which follow, the firsts develop at two and a-half years of age; the seconds at three and a-half; the thirds at four and a-half; and at five all the teeth are level. The horse teeth displace the colt teeth from two and a-half years of age till four and a-half in regular rotation. Like colt teeth, the horse teeth have deep cups in their crowns, and they generally appear grooved on the surface. At six years of age the cups leave the firsts; at seven, the seconds; at eight, the thirds; and at nine all the crowns of the

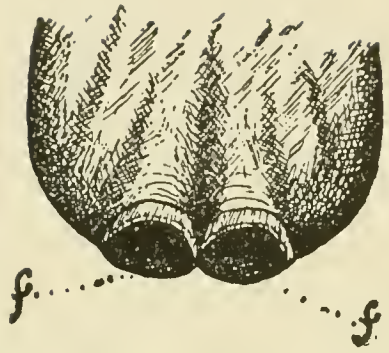


FIG. 50.—FOAL'S MOUTH AT BIRTH.
f f "Firsts" just appearing.

FIG. 51.—FOUR WEEKS OLD.
s s "Seconds" appearing.

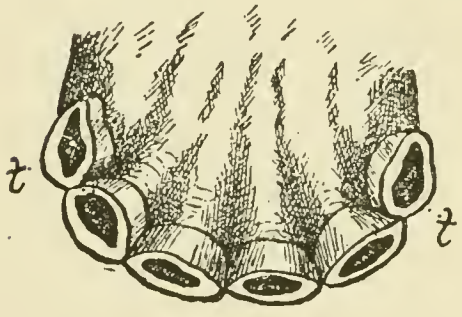


FIG. 52.—TEN MONTHS.
t t "Thirds" up—colt teeth all level.

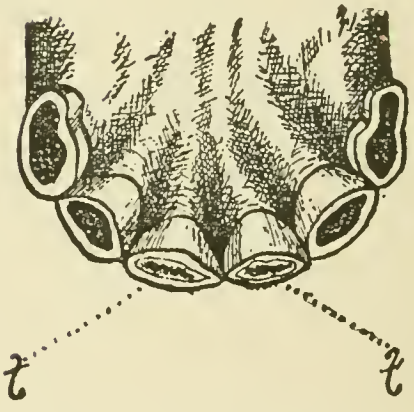


FIG. 53.—ONE-YEAR OLD.
f f Cups, leaving "Firsts."

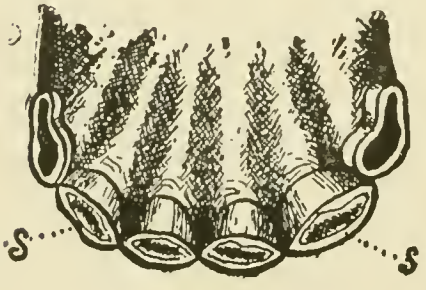


FIG. 54.
ONE-AND-A-HALF-YEARS-OLD.
s s Cups leaving "Seconds."

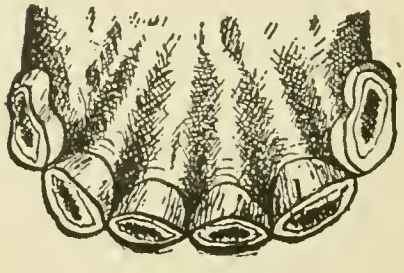


FIG. 55.
TWO-YEARS-OLD.
Cups all gone from colt teeth.

teeth are level. (Figs. 56, 57, 58. 59, 60, 61, 62, and 63).

About ten years of age the upper firsts and thirds — the latter particularly — appear grooved. The grooves are well marked, and run in a longitudinal direction, in consequence of the shrinkage of the gums from the teeth, and as the teeth wear and the gums recede, the crowns grow nearer the grooves. There are all also grooves on the inside walls of the firsts, which correspond fairly to those on the outside. When both are uniform the age of a horse is more easily determined. From ten years of age to twenty-one the horse will wear his teeth so fast away that the crowns will touch the bottom of the grooves, so that, in order to arrive at a correct conclusion of his age, a calculation is necessary between ten and twenty-one. When the grooves are half-way down the teeth the horse will be about fifteen years of age, and when they are intermediate on either side between the gums and the crowns, *i.e.*, quarter and three-quarters down, he will be from twelve to thirteen, and from seventeen to eighteen respectively. The grooves in the firsts and thirds, along with the general formation of the teeth, render it possible to arrive at very accurate conclusions. Generally speaking, the older a horse gets his teeth assume a darker hue in consequence of discoloration caused by ordinary wear, and sometimes by disease, so that the colour of the teeth must always be carefully considered in reckoning the age of a horse. (Figs. 64, 65, and 66).

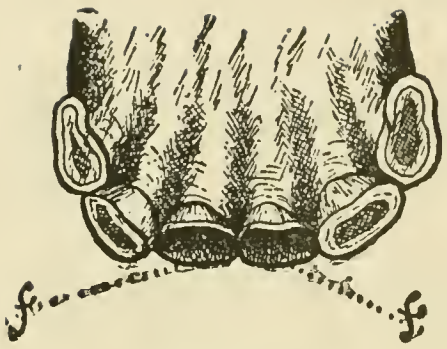


FIG. 56.
TWO AND-A-HALF YEARS OLD.
f f Horse "Firsts" developing.

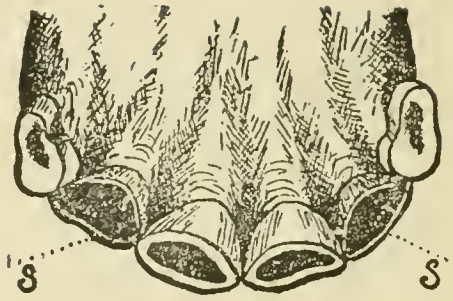


FIG. 57.
THREE AND A HALF YEARS OLD.
s s Horse "Seconds" appearing.

FIG. 58.—FOUR AND-A-HALF YEARS OLD.
t t Horse "Thirds" appearing.

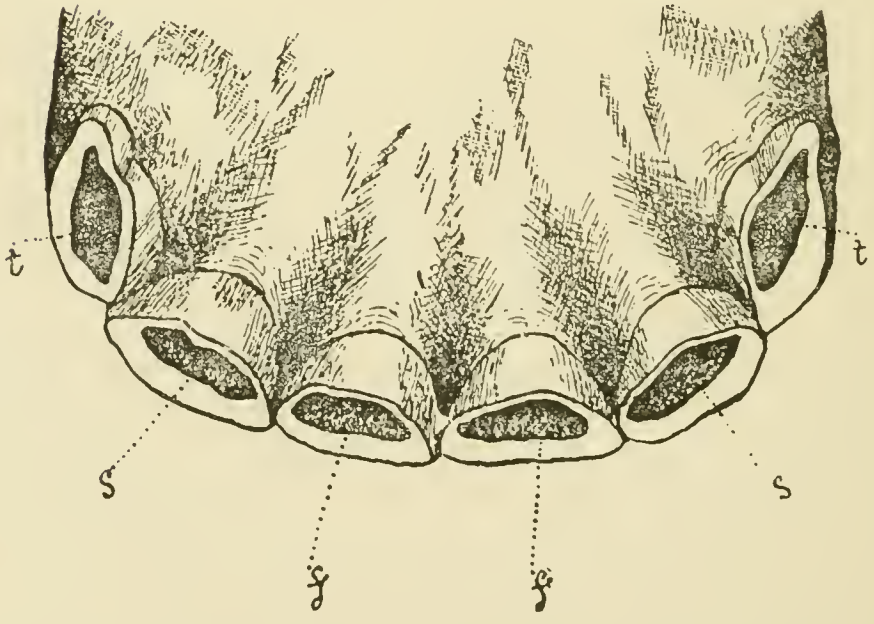


FIG. 59.—FIVE YEARS OLD.—Horse Teeth Developed.
f f "Firsts"; *s s* "Seconds"; *t t* "Thirds.

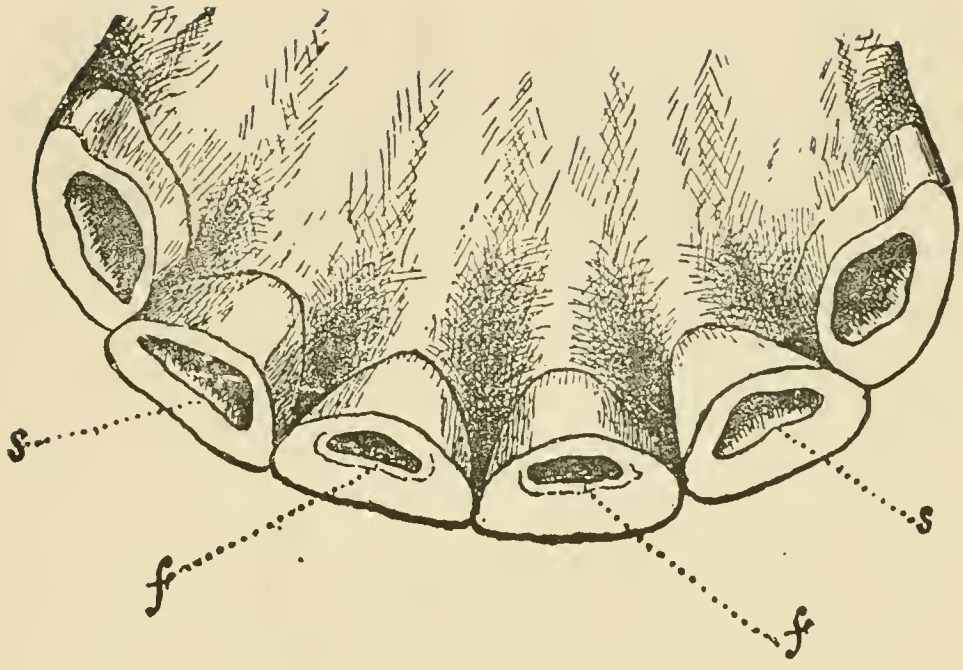


Fig. 60.—Six Years Old.
f f Cups leaving "Firsts"; *s s* Growing less in "Seconds."

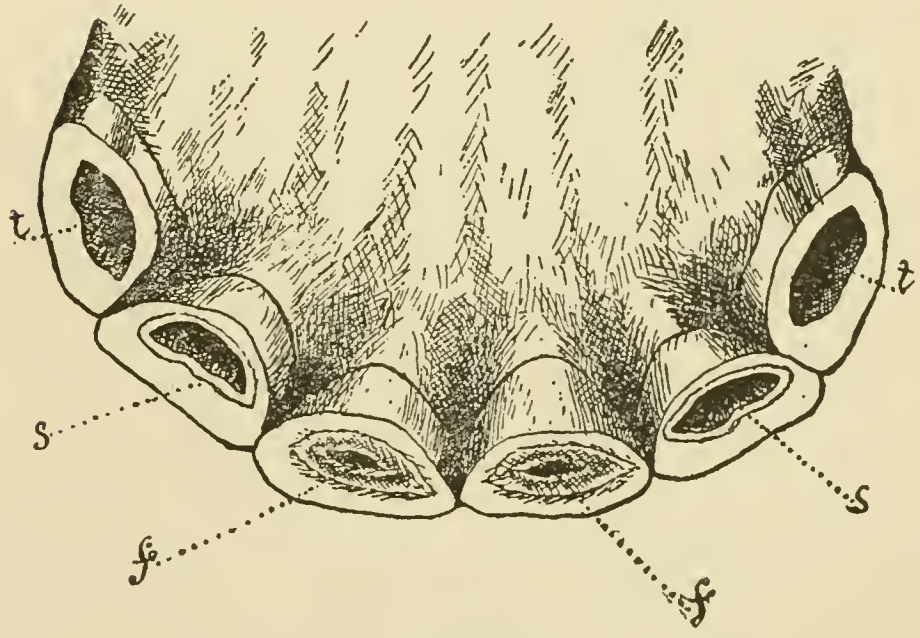


Fig. 61.—Seven Years Old.
f f Cups away from "Firsts"; *s s* Leaving "Seconds"; *t t* Growing smaller in "Thirds."

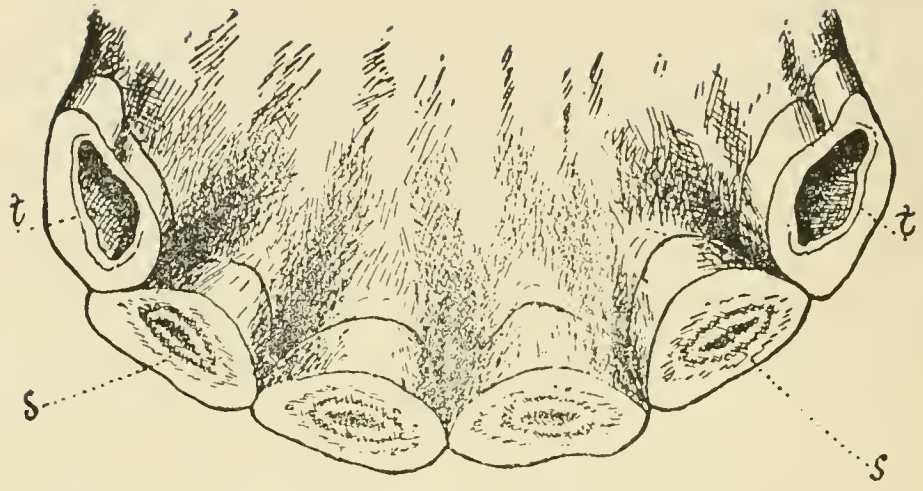


FIG. 62.—EIGHT YEARS OLD.
s s Cups away from "Seconds"; *t t* Growing small in "Thirds."

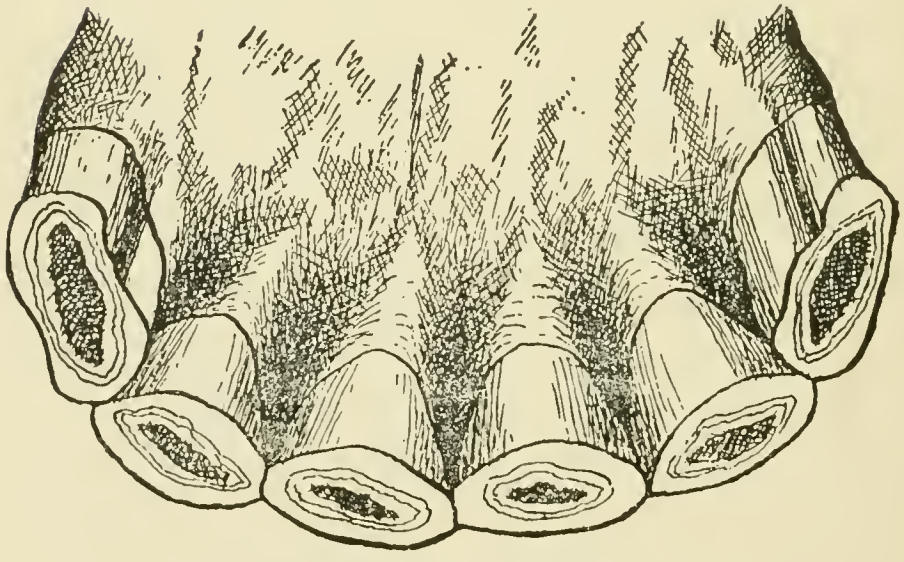


FIG. 63.—NINE YEARS OLD.
Horse teeth all level.

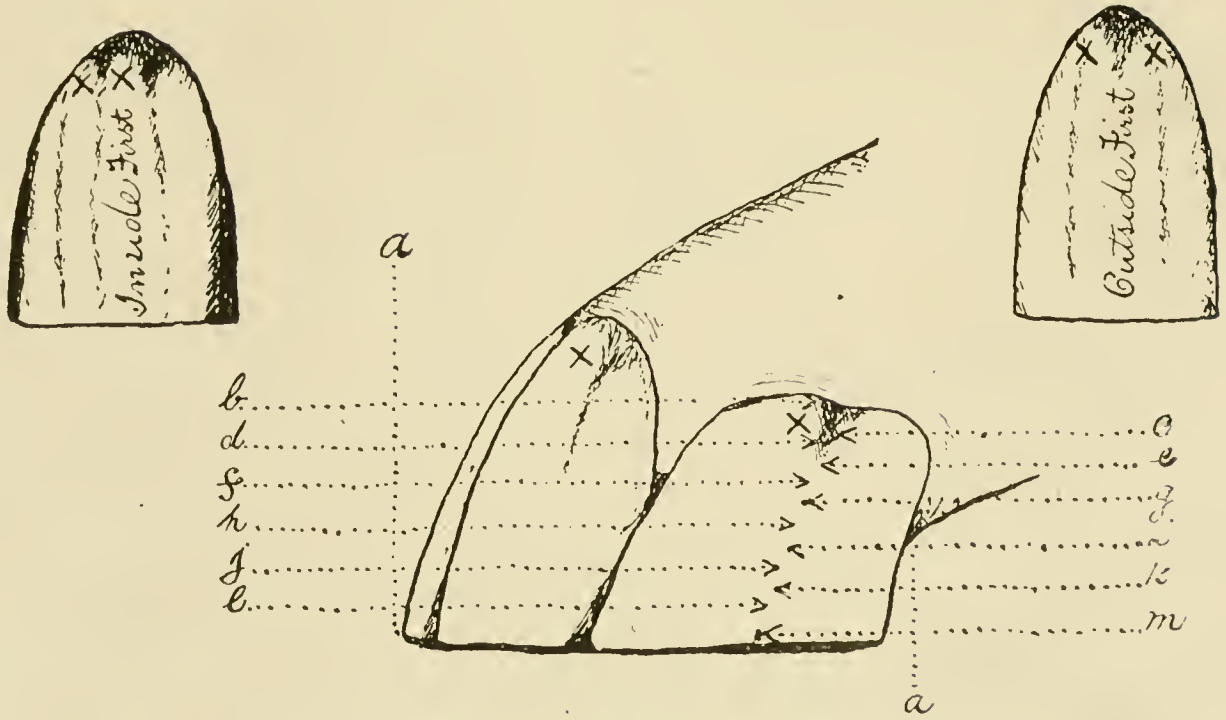


FIG. 64.—TWELVE TO THIRTEEN YEARS OLD.

a Angle of teeth; *b* Ten years; *c* Eleven years; *d* Twelve years; *e* Thirteen years; *f* Fourteen years; *g* Fifteen years; *h* Sixteen years; *i* Seventeen years; *j* Eighteen years; *k* Nineteen years; *l* Twenty years; *m* Twenty-one years. *x x* Grooves.

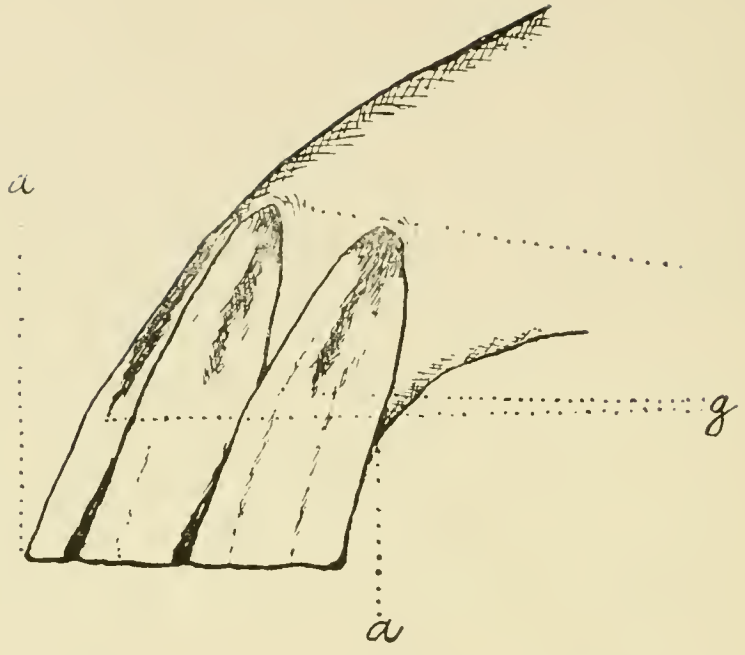


FIG. 65.—FIFTEEN TO SIXTEEN YEARS OLD.
a Angle of teeth; *g* Grooves; *l* Length of teeth.

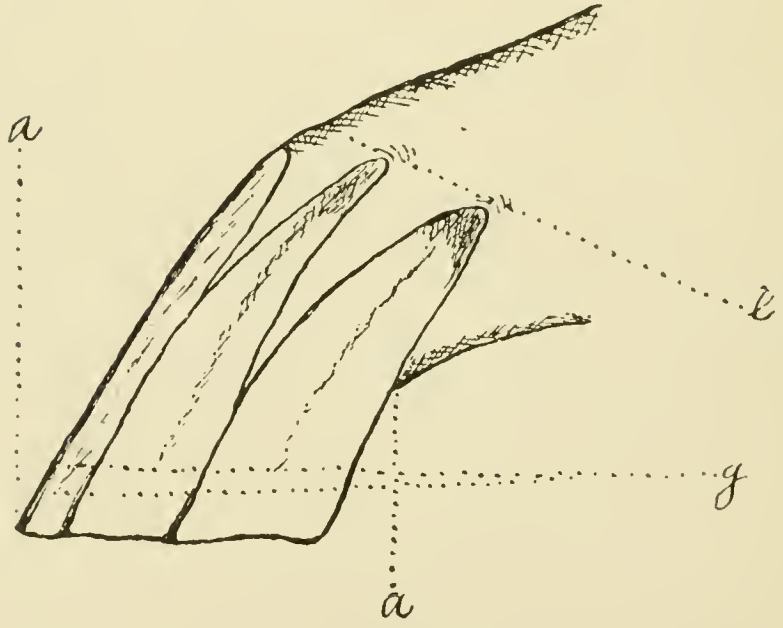


FIG 66.—SEVENTEEN TO EIGHTEEN YEARS OLD.
a Angle of teeth; *g* Grooves; *l* Length of teeth.

After five years of age the teeth get gradually thicker from front to rear and narrower across, and the angle of their setting increases in proportion. At the same time, horses addicted to biting the manger are apt to unduly wear and break their teeth, and in these cases it is difficult to discover their age, as the natural marks become defaced by such habits.

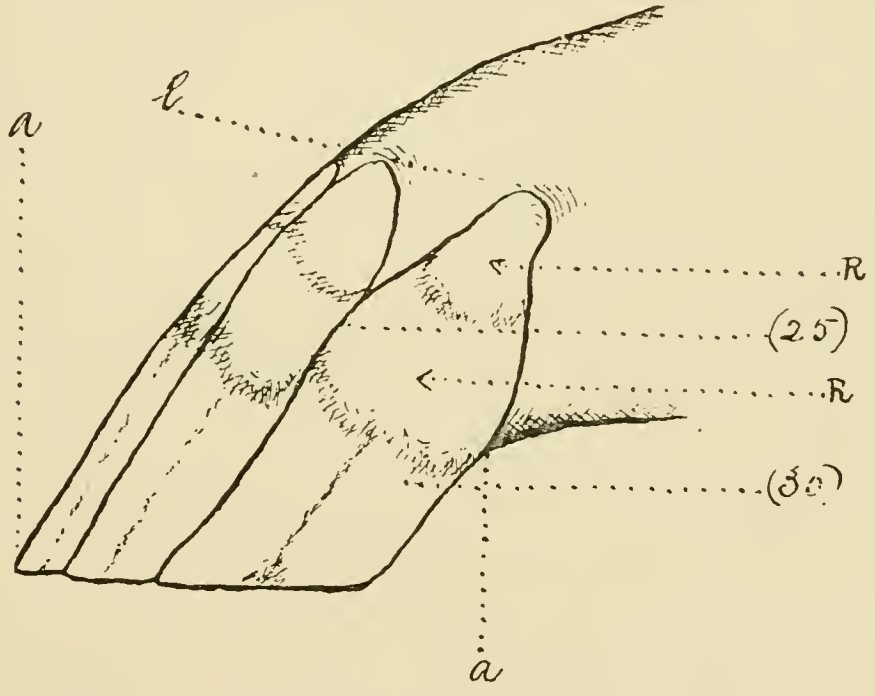


Fig. 67.—Twenty-Five and Thirty Years Old.
a Angle of teeth; R R Rounded protrusions; *l* Length of teeth.

At about twenty-two years of age the grooves have left the gums and are succeeded by rounded protrusions of a dark yellow colour which are very easily observed. When these protrusions extend down the corner teeth about a quarter of their entire length the horse will be about twenty-five or twenty-six years of age, and when they are half-way down he

will be about thirty (Fig. 67). A quarter of a century ago it was impossible to determine the ages of horses beyond eight or nine years, when the indentations left the teeth in the lower jaw, but the accurate observations of Galvayne, Brown, Smith, and other experts, have rendered a more extended knowledge practicable.

The principles of the method of teeth-reading described in the text and accompanying rough sketches, after horses have attained the age of ten years, are after Galvayne, Brown, and Smith, than whom there are probably few more reliable authorities —especially the first-named, who has perhaps done more than any other man in demonstrating and establishing the principles of a system which, if not absolutely perfect, is, at least, nearer that desired standard than any other system which has come within the experience of the writer.

From a utility point of view, it is unnecessary to determine the ages of horses beyond thirty years, for at that advanced age they are generally occupying the position of pensioners and are consequently of little monetary value. There are many well-authenticated instances of horses living to thirty-five and forty years of age. In Brown's "Complete Modern Farrier," the author produces a sketch of the teeth of a horse known as "Old Billy," which is said to have attained the phenomenal age of seventy-six years (p. 197). "The cranium," the author explains, "with the muscles preserved, is deposited in the Museum of the Manchester

Natural History Society, from which I made the drawing. The whole of the incisors are much elongated horizontally, but not perpendicularly elevated more than those of a horse at six years of age. The upper surface of the nippers and dividers are of a quadrangular form, the inner margins being a little rounded, while the corner teeth are oblong oval, nearly the form of an egg, with the most acute end outwards. The tushes are conical, a little blunted on the crown, and turned backward, with an elongated, shallow, curved groove on their inner sides." There is no evidence produced to prove that this horse actually lived seventy-six years, but assuming that he did, it is certainly the longest recorded age of a horse, so far at least as the writer knows. Donkeys are said to live much longer than horses, and singularly few people are to be met with who have actually seen a donkey die from natural causes. Whether this rare experience is attributable to remarkable longevity, or to the now meagre distribution of these frequently well-abused animals in this country, the writer does not venture to say. It has been said of asses that they lost their social status in England at the time of the Reformation. Prior to that era, custom recognised mules as the appropriate mounts of travelling ecclesiastics, even of the highest degree, whilst laymen used horses; and the disuse of mules by persons of such dignified standing no doubt was partially instrumental in bringing about the gradual cessation of mule-breeding in this country,

whereby fine stallion asses ceased to possess their former value.

The tushes, popularly known as canine teeth, are no certain guides in determining the age of horses. They generally appear about three years of age, but occasionally they do not develop until five and six years have been reached. These irregularities are probably due to constitutional changes, and to a certain extent to the early feeding of colts; well-grown colts generally produce tushes sooner than ill-thriven colts, so that feeding influences the development of the teeth just as it promotes physical growth generally. Mares are generally devoid of tushes, although in some instances they appear in a rudimentary, or modified, form. It is said that mares possessing tushes do not breed, but this is not correct, as the writer knew a mare with fairly well developed tushes that bore five foals in regular consecutive years after she had attained the age of sixteen; indeed, it is inconceivable that the presence or absence of tushes can have any influence on the breeding capacity of mares. The mare above mentioned had an additional peculiarity—a very much more extraordinary one—being devoid of warts (callosities) on the hind legs. Warts vary in size in different breeds and in different animals, and although the writer has heard of horses without them, the instance mentioned is the only one that has come under direct observation. This may have been a case of reversion to a remote ancestor, because it is held by some zoologists

that the early progenitors of the horse were without callosities. Zebras are devoid of warts on the hind legs, and Celtic ponies and mules are also said to be without them, but whether horses and asses sprang from the same source is a point in evolution which is still undecided.

The practice of knocking out the colt-teeth in order to accelerate the growth of the horse-teeth is too well known to require description. This artificial device is sometimes resorted to by unscrupulous vendors whose object is to make colts appear a year older than they actually are in order to procure a readier sale. By this means well-grown colts are sometimes worked a year sooner than they should be, which is, of course, very detrimental to them from all points of view.

"Bishoping" is another form of imposition which, however, is happily dying out. It consists in burning artificial cups in the crowns of the lower corner teeth after the natural ones are worn out, with the object of making a fifteen-year-old horse appear an eight-year-old. This may pass muster with a novice, but the device is easily detected by an experienced horseman. The artificial burning destroys the enamel surrounding the natural indentations of the teeth, thus producing dead black blotches. This, together with the reduced width and the increased angle of the setting of the teeth, render deception next to impossible since the newer methods of teeth-reading were introduced—hence, as already mentioned,

"Bishoping" is rapidly becoming a custom of the past.

Horses are sometimes subject to toothache and other diseases of the teeth. A very frequent ailment with horses beyond twelve or fifteen years of age is that their grinders become ragged and protrude both outwards and inwards. This prevents them masticating their food properly, which is soon discovered by chewed pieces being returned from their mouths, along with a quantity of saliva. The services of a veterinary surgeon should be obtained, and the projecting teeth well filed down with a long file, and the aid of a gag to keep the mouth open during the operation. Occasionally, when colts are shedding their teeth, the gums become inflamed and project beyond the teeth, which prevents them feeding properly. A few pricks with the point of a knife on the inflamed parts will generally remedy the evil.

DESTRUCTION OF HORSES.

Having advocated kindness throughout in the general management of horses, the author would like before concluding this chapter to enjoin on readers the necessity of practising kindness—*even in death!* He refers to horses that have served their time, and have become unfit for work by the infirmity of old age. Nothing is more pitiable, nothing more touching, than to see a faithful old horse abused in the yoke, driven forward by the sting of the whip, which in his happy youth he would have proudly resented, when

he is scarcely even fit to carry his own weight, instead of dragging a trap or a cart behind him. Can anyone, however impressive, exaggerate the barbarity of such conduct on the part of a man? Alas! the task would be impossible. And the man who abuses an old horse in the yoke is a cold, unfeeling coward, and wholly unworthy to be entrusted with the care of a dumb animal. And second to the dastard who inflicts the actual cruelty is the former owner of the horse. He may have bred him, and may have taken ten, fifteen, or even twenty years of hard work out of him, when, for the sake of pure greed, he will sell him into a life of misery for little more than the price of his skin! It is infinitely more humane to immediately destroy a horse when he becomes unfit for work by the approach of that stern conqueror, old age. Here and there we come across a benevolent man who makes a pensioner of his horse after he has served his term, but even then it remains to be questioned whether it would not be more humane to destroy him, because he is often reduced to a miserable cripple moving about in constant agony.

BEST METHOD OF DESTRUCTION.

Numerous methods have been suggested to procure euthanasy, such as suffocation by charcoal fumes, blood blowing, etc., but they are necessarily slow methods, and unless a man is of a callous disposition he can hardly carry them out successfully. Therefore, although the word has a harsh ring about it, the

writer does not hesitate to recommend shooting as the quickest and simplest method of destruction. When executed by steady hands death is instantaneous, and the poor horse practically suffers no pain. In advocating this method of destruction, or even destroying old horses at all, it is hoped that readers will not consider it unduly harsh and unkind, but should there be some a little inclined to sentimentality, the writer would like to respectfully ask them, whether prolonging painful agony, or producing instant death in horses, is the greater sin?

PRACTICABILITY IN HORSE MANAGEMENT.

In writing the foregoing chapters on the training and management of horses, the author has endeavoured to elucidate the different stages throughout as clearly and intelligibly as possible. Born and bred amongst horses, he has ever taken a deep interest in their management and welfare, and the different methods which have been advocated in dealing with the various stages of their management will, on application by good hands, be found to be thoroughly practicable in every detail. Of course it must be borne in mind that the general instruction in the training of horses that has been advocated throughout has been intended to apply to men of good nerves, light hands, and cool heads. The task of constructing the rules of a definite system for the guidance of nervous, cruel, and indifferent horsemen must be left to abler writers. And if it were possibe to elaborate

such a system, it is doubtful if the unreasonable requirements of such men would be adequately met.

KINDNESS *versus* CRUELTY, AND REASON *versus* INSTINCT.

The author trusts that the following facts have been firmly established, viz., that the judicious exercise of uniform kindness is far more beneficial in its results than carelessness and cruelty, and that brute instinct is a force which must always yield to the conquering power of man's intelligent and constructive reason, in all circumstances, however great the odds may be against it. All those who have the direct management of horses should therefore realise the grave duty incumbent upon them, from their loftier sphere of reason, to treat these dumb members of the brute creation with due consideration and regard.

In concluding, the writer urgently and earnestly enjoins on men the necessity of remembering *that they are men* (for a man can only abuse a horse when his better reason deserts him), and if they do this, they will never forget the impassable gulf that separates them from the lower animal world, but will appreciate the higher and nobler power with which they are endowed, and will exercise on all occasions, not only to horses, but to all members of the brute creation, that generous kindness and consideration which render the toils of existence sweet, and make life worth living.

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